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THE OBJECTIVE OF THIS CMP IS TO: VERIFY AND EVALUATE POTENTIAL AIR QUALITY HEALTH HAZARDS, TO VERIFY PROGRESS THAT HAS BEEN MADE TO DATE IN REMOVING CONTAMINANTS RESULTING FROM PREVIOUS ACTIVITIES, TO PROVIDE BASELINE DATA FOR THE EVALUATION OF PROGRESS THAT WILL BE MADE IN FUTURE REMEDIAL ACTIVITIES, TO DEVELOP REAL-TIME GUIDELINES, STANDARD PROCEDURES AND DATA COLLECTION METHODS, AS APPROPRIATE, TO INDICATE IMPACTS OF ONGOING, REMEDIAL ACTIONS, AND TO VALIDATE AND DOCUMENT DATABASE RELIABILITY.

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COMPREHENSIVE MONITORING PROGRAM

Contract Number DAAA15-87-0095

AIR QUALITY DATA ASSESSMENT REPORT FOR FY90

FINAL REPORT

SEPTEMBER 1991

Version 3.1
Volume IV

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ACRONYMS AND ABBREVIATIONS

111TCE	1,1,1-Trichloroethane
112TCE	1,1,2-Trichloroethane
ADI	Acceptable Daily Intake
Atrazine	2-chloro-4-ethylamino-6-isopropylamino-s-trianine
BCHPD	Bicycloheptadiene
C_6H_6	Benzene
CCl_4	Carbon Tetrachloride
CH_2Cl_2	Methylene Chloride
$CHCl_3$	Chloroform
Chlordane	1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methano-1H-indene
ClC_6H_5	Chlorobenzene
CMP FY90	Comprehensive Monitoring Program Fiscal Year 1990
CO	Carbon Monoxide
CRL	Certified Reporting Limit
DBCP	Dibromochloropropane
DCLE11	1,1-Dichloroethane
DCLE12	1,2-Dichloroethane
DCPD	Dicyclopentadiene
DDD	Dichlorodiphenyldichloroethane
DMB12	Dimethylbenzene
DMDS	Dimethyl Disulfide
EPA	Environmental Protection Agency
ETC_6H_5	Ethylbenzene
GC/MS	Gas Chromatography/Mass Spectrometry
GC/ECD	Gas Chromatography/Electron Capture Detection
ICAP	Inductively Coupled Argon Plasma
Malathion	0,0-dimethyl-s-(1,2-dicarboxyethyl) phosphorodithioate
MEC_6H_5	Toluene
MIBK	Methyl Isobutyl Ketone
MST	Mountain Standard Time
NAAQS	National Ambient Air Quality Standards
NATICH	National Air Toxics Information Clearinghouse
NIOSH	National Institute of Occupational Safety and Health
NNDMEA	N-Nitrosodimethylamine
NO_x	Nitrogen Oxides
O_3	Ozone

ACRONYMS AND ABBREVIATIONS (continued)

OCP	Organochlorine Pesticides
Parathion	Parathion ($C_{10}H_{14}NO_5PS$)
PMRMA	Program Manager Rocky Mountain Arsenal
PM-10	Respirable Particulates less than 10 microns
PPDDE	Dichlorodiphenylethane
PPDDT	Dichlorodiphenyltrichloroethane
SO_2	Sulfur Dioxide
Supona	2-chloro-1-(2,4-dichlorophenyl) vinyl diethyl phosphate
SVOC	Semi-Volatile Organic Compounds
T12DCE	Trans-1,2-Dichloroethene
TCLEE	Tetrachloroethene
TLV	threshold limit value
tpy	tons per year
TRCLE	Trichleroethene
TSP	Total Suspended Particulates
USATHAMA	U.S. Army Toxic and Hazardous Materials Agency
USAEHA	U.S. Army Environmental Hygiene Agency
VOC	Volatile Organic Compounds
XYLENE	Xylene

APPENDIX A

TOTAL SUSPENDED PARTICULATES (TSP) DATA

A1 Summary

(on diskette file APPA1.TXT)

A2 Listing

(on diskette file APPA2.TXT)

APPENDIX B

RESPIRABLE PARTICULATES OF LESS THAN 10 MICRONS (PM-10) DATA

B1 Summary

B2 Listing

B1 Summary
(on diskette file APPB1.TXT)

B2 Listing
(on diskette file APPB2.TXT)

APPENDIX C

ARSENIC, METALS AND MERCURY DATA

(These data have not been finalized by PMRMA)

C1 Listing

C1 Listing

(on diskette file APPC1.TXT)

APPENDIX D

ASBESTOS DATA

D1 Listing

D1 Listing
(on diskette file APPD.TXT)

APPENDIX E

VOLATILE ORGANIC COMPOUNDS (VOC) DATA
(These data have not been finalized by PMRMA)
E1 Listing

E1 Listing
(on diskette file APPE.TXT)

APPENDIX F

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOC) DATA
(These data have not been finalized by PMRMA)
F1 Listing

F1 Listing
(on diskette file APPF.TXT)

APPENDIX G

ORGANOCHLORINE PESTICIDES (OCP) DATA
(These data have not been finalized by PMRMA)
G1 Listing

G1 Listing
(on diskette file APPG.TXT)

APPENDIX H

QUALITY ASSURANCE/QUALITY CONTROL

H1 Precision Calculation

H2 Daily Zero and Span Data for Continuous Gaseous Monitors

H3 Audit Results

H1 Precision Calculation

OZONE PRECISION CALCULATIONS
CMP - FY90

DATE	ANALYZER RESPONSE (PPB)	CALIBRATOR OUTPUT (PPB)	% DIFF.
10-13-89	95.4	89.6	6.47
10-24-89	94.7	89.7	5.57
11-08-89	94.6	93.3	1.39
11-20-89	95.6	89.3	7.05
12-08-89	96.1	90.7	5.95
12-22-89	95.1	89.8	5.90
02-01-90	106.0	99.7	6.32
02-15-90	96.9	89.0	8.88
03-02-90	95.9	90.2	6.32
03-15-90	95.7	90.8	5.40
04-19-90	93.3	90.0	3.67
04-26-90	91.0	90.2	0.89
05-10-90	93.3	90.5	3.09
05-24-90	92.0	90.5	1.66
06-07-90	89.1	89.7	-0.67
06-21-90	92.0	90.0	2.22
07-05-90	91.6	90.0	1.78
07-20-90	89.6	90.0	-0.44
08-02-90	91.3	90.2	1.22
08-16-90	90.4	89.5	1.01
08-30-90	92.9	92.8	0.11
09-13-90	91.0	89.8	1.34
09-27-90	91.7	89.7	2.23

AVERAGE % DIFFERENCE	3.36
STANDARD DEVIATION	2.70
UPPER 95% PROBABILITY LIMIT	8.65
LOWER 95% PROBABILITY LIMIT	-1.92

CARBON MONOXIDE PRECISION CALCULATIONS
CMP - FY90

DATE	ANALYZER RESPONSE (PPM)	CALIBRATOR OUTPUT (PPM)	% DIFF.
10-13-89	8.9	9.6	-7.29
10-23-89	9.1	9.6	-5.21
11-03-89	9.3	9.6	-3.12
11-20-89	9.4	9.6	-2.08
12-04-89	9.3	9.6	-3.12
12-22-89	9.5	9.6	-1.04
02-01-90	8.4	9.1	-7.69
02-08-90	8.6	9.1	-5.49
02-14-90	8.8	9.1	-3.30
03-01-90	8.7	9.1	-4.40
03-15-90	8.9	9.1	-2.20
03-29-90	9.0	9.7	-7.22
04-11-90	9.3	9.7	-4.12
05-10-90	9.1	9.7	-6.19
05-24-90	9.0	9.7	-7.22
06-07-90	9.0	9.7	-7.22
06-21-90	9.1	9.7	-6.19
07-05-90	9.1	9.7	-6.19
07-20-90	9.0	9.7	-7.22
08-02-90	8.9	9.7	-8.25
08-16-90	8.9	9.5	-6.32
08-30-90	9.0	9.7	-7.22
09-13-90	8.8	9.3	-5.38
09-27-90	8.8	9.3	-5.38

AVERAGE % DIFFERENCE	-5.38
STANDARD DEVIATION	1.98
UPPER 95% PROBABILITY LIMIT	-1.50
LOWER 95% PROBABILITY LIMIT	-9.25

SULFUR DIOXIDE PRECISION CALCULATIONS
CMP - FY' 0

DATE	ANALYZER RESPONSE (PPB)	CALIBRATOR OUTPUT (PPB)	% DIFF.
10-13-89	88.6	104.0	-14.81
10-23-89	84.6	104.0	-18.65
11-08-90	87.3	104.0	-16.06
11-20-89	94.3	104.0	-9.33
12-04-89	89.9	104.0	-13.56
12-22-89	91.6	90.0	1.78
02-01-90	100.0	91.0	9.89
02-15-90	110.3	115.6	-4.58
03-01-90	93.3	88.8	5.07
03-15-90	97.3	88.8	9.57
03-29-90	123.8	125.3	-1.20
04-11-90	125.5	125.3	0.16
04-19-90	114.3	113.5	0.70
04-26-90	102.3	102.4	-0.10
05-10-90	103.7	102.4	1.27
05-24-90	100.3	102.4	-2.05
06-07-90	96.6	102.4	-5.66
06-20-90	92.3	96.8	-4.65
06-21-90	97.4	102.4	-4.88
07-05-90	99.4	102.4	-2.93
07-20-90	97.3	102.4	-4.98
08-02-90	101.0	102.4	-1.37
08-07-90	100.3	105.2	-4.66
08-16-90	96.0	105.2	-8.75
08-30-90	102.4	105.2	-2.66
09-13-90	98.0	101.3	-3.26
09-27-90	99.4	101.3	-1.88

AVERAGE % DIFFERENCE	-3.61
STANDARD DEVIATION	6.73
UPPER 95% PROBABILITY LIMIT	9.58
LOWER 95% PROBABILITY LIMIT	-16.80

NITROGEN OXIDES PRECISION CALCULATIONS
CMP - FY90

DATE	ANALYZER RESPONSE (PPB)	CALIBRATOR OUTPUT (PPB)	% DIFF.
10-13-89	84.9	89.6	-5.25
10-24-89	80.9	89.6	-9.71
11-08-89	82.9	89.6	-7.48
11-20-89	89.6	89.6	0.00
12-04-89	83.9	89.6	-6.36
12-22-89	77.5	89.6	-13.50
02-01-90	95.4	90.3	5.65
02-03-90	73.5	88.0	-16.48
02-05-90	94.4	88.0	7.27
02-15-90	106.6	114.8	-7.14
03-01-90	94.6	88.2	7.26
03-15-90	100.0	88.2	13.38
03-29-90	101	124.4	-18.81
04-26-90	100.7	101.6	-0.89
05-10-90	100.1	101.6	-1.48
05-24-90	90.6	101.6	-10.83
06-07-90	89.3	101.6	-12.11
06-21-90	92.7	101.6	-8.76
07-05-90	92.6	101.6	-8.86
07-20-90	97.7	101.6	-3.84
08-02-90	96.0	102.4	-6.25
08-16-90	96.7	104.0	-7.02
08-30-90	97.0	104.1	-6.82
09-13-90	95.3	100.2	-4.89
09-27-90	95.0	100.2	-5.19

AVERAGE % DIFFERENCE	-5.12
STANDARD DEVIATION	7.37
UPPER 95% PROBABILITY LIMIT	9.33
LOWER 95% PROBABILITY LIMIT	-19.58

TSP PRECISION CALCULATIONS

DATE	SITE	TAG NO.	TSP CONC (ug/m3)	SITE	TAG NO.	TSP CONC (ug/m3)	% DIFF
01-OCT-89	AQ5	18449	73.6	AQ5B	18450	71.5	-3.00
19-OCT-89	AQ5	18666	31.6	AQ5B	18667	28.9	-9.10
25-OCT-89	AQ5	18680	95.8	AQ5B	18681	93.5	-2.51
31-OCT-89	AQ5	18701	23.5	AQ5B	18702	17.0	-31.74
06-NOV-89	AQ5	18715	42.0	AQ5B	18716	40.8	-2.97
12-NOV-89	AQ5	18746	24.8	AQ5B	18747	24.1	-3.11
18-NOV-89	AQ5	18760	36.6	AQ5B	18761	35.5	-3.16
24-NOV-89	AQ5	18781	41.9	AQ5B	18782	40.7	-2.89
30-NOV-89	AQ5	18795	55.8	AQ5B	18796	53.0	-5.13
06-DEC-89	AQ5	22909	28.9	AQ5B	22910	29.1	0.71
12-DEC-89	AQ5	22928	50.8	AQ5B	22929	48.8	-3.98
18-DEC-89	AQ5	22942	26.8	AQ5B	22943	28.5	6.11
24-DEC-89	AQ5	22956	53.0	AQ5B	22957	51.0	-3.83
30-DEC-89	AQ5	22970	24.0	AQ5B	22971	22.7	-5.26
05-JAN-90	AQ5	22984	124.0	AQ5B	22985	122.0	-1.61
11-JAN-90	AQ5	25768	21.5	AQ5B	25769	20.1	-6.73
17-JAN-90	AQ5	25784	36.7	AQ5B	25785	36.5	-0.33
23-JAN-90	AQ5	25798	25.3	AQ5B	25799	24.7	-2.16
29-JAN-90	AQ5	25812	34.4	AQ5B	25813	32.9	-4.47
04-FEB-90	AQ5	25826	34.8	AQ5B	25827	33.6	-3.74
10-FEB-90	AQ5	25840	29.2	AQ5B	25841	29.1	-0.42
16-FEB-90	AQ5	25854	86.4	AQ5B	25855	85.2	-1.41
22-FEB-90	AQ5	25868	42.1	AQ5B	25869	41.2	-2.12
28-FEB-90	AQ5	25882	17.4	AQ5B	25883	17.7	1.48
12-MAR-90	AQ5	25910	38.3	AQ5B	25911	35.9	-6.45
18-MAR-90	AQ5	25924	9.6	AQ5B	25925	9.4	-1.98
24-MAR-90	AQ5	25938	7.0	AQ5B	25939	6.5	-6.82
30-MAR-90	AQ5	25952	19.9	AQ5B	25953	19.4	-2.55
05-APR-90	AQ5	25966	5.0	AQ5B	25967	4.4	-13.60
11-APR-90	AQ5	25980	43.3	AQ5B	25981	42.5	-1.83
17-APR-90	AQ5	25994	33.5	AQ5B	25995	34.2	1.78

TSP PRECISION CALCULATIONS (CONTINUED)

DATE	SITE	TAG NO.	TSP CONC UG/M3	SITE	TAG NO.	TSP CONC UG/M3	% DIFF
29-APR-90	AQ5	Q000033	24.3	AQ5B	Q000034	22.7	-6.96
05-MAY-90	AQ5	Q000053	20.5	AQ5B	Q000054	19.6	-4.41
11-MAY-90	AQ5	Q000083	35.2	AQ5B	Q000084	35.6	1.10
17-MAY-90	AQ5	Q000129	22.4	AQ5B	Q000130	22.7	1.49
23-MAY-90	AQ5	Q000154	53.1	AQ5B	Q000190	55.8	5.02
29-MAY-90	AQ5	Q000210	21.8	AQ5B	Q000211	22.1	1.36
10-JUN-90	AQ5	Q000254	28.2	AQ5B	Q000255	26.3	-6.65
16-JUN-90	AQ5	Q000285	53.2	AQ5B	Q000286	56.4	5.86
22-JUN-90	AQ5	Q332	52.4	AQ5B	Q333	51.9	-0.99
28-JUN-90	AQ5	Q367	63.4	AQ5B	Q368	67.4	6.19
04-JUL-90	AQ5	Q393	23.7	AQ5B	Q394	24.5	3.45
10-JUL-90	AQ5	Q426	32.5	AQ5B	Q428	33.0	1.52
16-JUL-90	AQ5	Q447	42.9	AQ5B	Q448	40.4	-6.05
22-JUL-90	AQ5	Q469	10.3	AQ5B	Q470	9.5	-8.38
28-JUL-90	AQ5	Q489	38.8	AQ5B	Q490	43.9	12.24
09-AUG-90	AQ5	Q545	66.7	AQ5B	Q546	66.3	-0.66
15-AUG-90	AQ5	Q565	36.2	AQ5B	Q566	40.8	11.96
21-AUG-90	AQ5	Q585	37.0	AQ5B	Q586	39.1	5.61
27-AUG-90	AQ5	Q606	37.6	AQ5B	Q607	40.4	7.26
02-SEP-90	AQ5	Q626	32.6	AQ5B	Q627	33.1	1.51
08-SEP-90	AQ5	Q647	35.7	AQ5B	Q648	34.9	-2.16
14-SEP-90	AQ5	Q668	170.1	AQ5B	Q669	181.0	6.19
20-SEP-90	AQ5	Q689	25.5	AQ5B	Q690	27.1	6.25
26-SEP-90	AQ5	Q711	24.8	AQ5B	Q712	24.7	-0.47

AVERAGE % DIFFERENCE	-1.50
STANDARD DEVIATION	6.57
UPPER 95% PROB. LIMIT	8.04
LOWER 95% PROB. LIMIT	-10.16
NUMBER OF PRECISION CHECKS	55
NUMBER OF PAIRED SAMPLES LESS THAN 20 ug/m3	6

PM-10 PRECISION CALCULATIONS

DATE	SITE	FILTER NO.	CONC UG/M3	SITE	FILTER NO.	CONC UG/M3	% DIFFER
01-OCT-89	AQ5C	13479	29.17	AQ5D	13480	28.99	-0.62
07-OCT-89	AQ5C	13485	32.29	AQ5D	13486	32.88	1.80
13-OCT-89	AQ5C	13491	27.33	AQ5D	13492	27.86	1.93
19-OCT-89	AQ5C	13497	19.20	AQ5D	13498	18.85	-1.85
25-OCT-89	AQ5C	13503	50.34	AQ5D	13504	50.79	0.88
31-OCT-89	AQ5C	13509	15.06	AQ5D	13510	14.97	-0.66
06-NOV-89	AQ5C	13515	19.66	AQ5D	13516	19.63	-0.11
12-NOV-89	AQ5C	13521	12.57	AQ5D	13522	12.66	0.72
18-NOV-89	AQ5C	13527	19.02	AQ5D	13528	19.19	0.88
24-NOV-89	AQ5C	13533	20.48	AQ5D	13534	20.34	-0.71
30-NOV-89	AQ5C	13539	30.21	AQ5D	13540	29.91	-0.99
06-DEC-89	AQ5C	13545	13.51	AQ5D	13546	14.69	8.40
12-DEC-89	AQ5C	13551	26.33	AQ5D	13554	25.50	-3.22
18-DEC-89	AQ5C	13558	21.45	AQ5D	13559	20.48	-4.59
24-DEC-89	AQ5C	13564	22.83	AQ5D	13565	22.80	-0.13
30-DEC-89	AQ5C	13570	15.32	AQ5D	13571	14.43	-5.95
05-JAN-90	AQ5C	13576	65.72	AQ5D	13577	65.76	0.06
11-JAN-90	AQ5C	13582	10.27	AQ5D	13583	10.27	0.07
17-JAN-90	AQ5C	13588	19.14	AQ5D	13589	19.87	3.75
23-JAN-90	AQ5C	13594	10.16	AQ5D	13595	9.94	-2.13
29-JAN-90	AQ5C	13600	13.70	AQ5D	13601	12.19	-11.66
04-FEB-90	AQ5C	13606	19.24	AQ5D	13607	19.09	-0.81
10-FEB-90	AQ5C	13612	11.69	AQ5D	13613	11.92	1.91
16-FEB-90	AQ5C	13618	59.76	AQ5D	13619	59.87	0.18
22-FEB-90	AQ5C	13624	23.60	AQ5D	13625	23.08	-2.23
28-FEB-90	AQ5C	13630	14.23	AQ5D	13631	14.17	-0.46
06-MAR-90	AQ5C	13636	8.96	AQ5D	13637	8.91	-0.54
12-MAR-90	AQ5C	13642	17.31	AQ5D	13643	17.30	-0.05
18-MAR-90	AQ5C	13648	10.31	AQ5D	13649	10.54	2.14
24-MAR-90	AQ5C	13654	8.78	AQ5D	13655	8.10	-8.12
05-APR-90	AQ5C	13666	5.02	AQ5D	13667	3.56	-34.20
11-APR-90	AQ5C	13672	28.29	AQ5D	13673	28.57	1.01
17-APR-90	AQ5C	13678	16.87	AQ5D	13679	17.39	3.04

PM-10 PRECISION CALCULATIONS (CONTINUED)

DATE	SITE	FILTER NO.	CONC UG/M3	SITE	FILTER NO.	CONC UG/M3	% DIFFER
29-APR-90	AQ5C	Q000035	19.91	AQ5D	Q000036	6.12	-105.92
05-MAY-90	AQ5C	Q000055	11.73	AQ5D	Q000056	11.86	1.09
11-MAY-90	AQ5C	Q000085	17.35	AQ5D	Q000086	16.76	-3.44
17-MAY-90	AQ5C	Q000131	12.44	AQ5D	Q000132	11.89	-4.54
23-MAY-90	AQ5C	Q000191	23.57	AQ5D	Q000192	23.73	0.64
29-MAY-90	AQ5C	Q000212	11.00	AQ5D	Q000213	11.15	1.38
10-JUN-90	AQ5C	Q000256	12.40	AQ5D	Q000257	12.54	1.09
16-JUN-90	AQ5C	Q000287	21.50	AQ5D	Q000288	20.94	-2.64
22-JUN-90	AQ5C	Q334	24.02	AQ5D	Q335	22.23	-7.74
28-JUN-90	AQ5C	Q369	29.78	AQ5D	Q370	29.99	0.72
04-JUL-90	AQ5C	Q395	14.55	AQ5D	Q396	15.35	5.37
22-JUL-90	AQ5C	Q471	4.63	AQ5D	Q472	4.45	-4.12
28-JUL-90	AQ5C	Q491	17.92	AQ5D	Q492	17.26	-3.77
03-AUG-90	AQ5C	Q527	21.39	AQ5D	Q528	21.54	0.69
09-AUG-90	AQ5C	Q547	32.80	AQ5D	Q548	33.01	0.64
15-AUG-90	AQ5C	Q567	17.08	AQ5D	Q568	16.51	-3.36
21-AUG-90	AQ5C	Q587	19.25	AQ5D	Q588	19.37	0.64
27-AUG-90	AQ5C	Q608	17.12	AQ5D	Q609	14.36	-17.54
02-SEP-90	AQ5C	Q628	16.41	AQ5D	Q630	15.72	-4.34
08-SEP-90	AQ5C	Q649	17.11	AQ5D	Q650	17.22	0.69
14-SEP-90	AQ5C	Q670	64.97	AQ5D	Q671	66.88	2.90
20-SEP-90	AQ5C	Q691	13.55	AQ5D	Q692	13.64	0.60
26-SEP-90	AQ5C	Q713	13.53	AQ5D	Q714	12.91	-4.68

AVERAGE % DIFFERENCE	-3.53
STANDARD DEVIATION	15.01
UPPER 95% PROB. LIMIT	18.31
LOWER 95% PROB. LIMIT	-23.31
NUMBER OF PRECISION CHECKS	56
NUMBER OF PAIRED SAMPLES LESS THAN 20 ug/m3	36

METALS AND ARSENIC PRECISION CALCULATIONS

DATE	SITES	CADMIUM	CHROMIUM	COPPER	LEAD	ZINC	ARSENIC
				PERCENT DIFFERENCE			
01-OCT-89	AQ5, AQ5B	LT CRL	LT CRL	17.00	11.07	6.37	-28.88
07-OCT-89	AQ5, AQ5B	LT CRL	LT CRL	62.67	0.15	0.45	-6.38
13-OCT-89	AQ5, AQ5B	LT CRL	LT CRL	63.42	-0.68	5.07	LT CRL
19-OCT-89	AQ5, AQ5B	LT CRL	LT CRL	70.88	2.55	-5.41	LT CRL
25-OCT-89	AQ5, AQ5B	-8.15	LT CRL	49.08	-6.16	-6.28	-1.04
31-OCT-89	AQ5, AQ5B	LT CRL	LT CRL	20.01	21.04	-18.25	
06-NOV-89	AQ5, AQ5B	LT CRL	LT CRL	40.25	10.83	4.42	-131.93
08-NOV-89	AQ5, AQ5B	LT CRL	LT CRL	67.91	-38.40	-6.76	LT CRL
12-NOV-89	AQ5, AQ5B	LT CRL	LT CRL	8.73	4.29	8.44	
18-NOV-89	AQ5, AQ5B	LT CRL	LT CRL	57.16	2.00	-2.32	
24-NOV-89	AQ5, AQ5B	LT CRL	LT CRL	55.19	-10.66	-0.04	LT CRL
30-NOV-89	AQ5, AQ5B	LT CRL	LT CRL	36.81	-10.19	-4.93	
06-DEC-89	AQ5, AQ5B	LT CRL	LT CRL	-16.63	1.89	0.74	LT CRL
12-DEC-89	AQ5, AQ5B	-5.24	LT CRL	63.79	-2.60	163.23	
18-DEC-89	AQ5, AQ5B	LT CRL	LT CRL	11.98	38.36	16.04	
24-DEC-89	AQ5, AQ5B	LT CRL	LT CRL	33.36	15.18	-0.64	
30-DEC-89	AQ5, AQ5B	6.89	LT CRL	-1.08	48.01	101.15	
05-JAN-90	AQ5, AQ5B	LT CRL	LT CRL	-17.44	-6.58	-1.58	21.02
07-JAN-90	AQ5, AQ5B	-8.95	LT CRL	60.04	7.49	10.18	LT CRL
09-JAN-90	AQ5, AQ5B	-4.67	LT CRL	23.23	-2.54	17.83	LT CRL
11-JAN-90	AQ5, AQ5B	LT CRL	LT CRL	-9.84	LT CRL	-8.92	LT CRL
17-JAN-90	AQ5, AQ5B	LT CRL	LT CRL	31.06	33.39	143.67	
23-JAN-90	AQ5, AQ5B	LT CRL	LT CRL	74.39	0.04	6.24	
29-JAN-90	AQ5, AQ5B	LT CRL	LT CRL	83.31	-7.05	4.68	
04-FEB-90	AQ5, AQ5B	LT CRL	LT CRL	62.74	-4.98	2.48	-7.16
10-FEB-90	AQ5, AQ5B	LT CRL	LT CRL	87.93	-17.01	1.51	
16-FEB-90	AQ5, AQ5B	LT CRL	LT CRL	3.85	0.62	5.00	
22-FEB-90	AQ5, AQ5B	LT CRL	LT CRL	56.34	14.56	0.93	
28-FEB-90	AQ5, AQ5B	LT CRL	LT CRL	25.91	LT CRL	-65.43	
06-MAR-90	AQ5, AQ5B	LT CRL	LT CRL	-14.57	LT CRL	-46.71	LT CRL
12-MAR-90	AQ5, AQ5B	LT CRL	LT CRL	105.02	-28.65	-5.76	
18-MAR-90	AQ5, AQ5B	LT CRL	LT CRL	74.25	LT CRL	19.55	
24-MAR-90	AQ5, AQ5B	LT CRL	LT CRL	109.09	LT CRL	-38.05	
30-MAR-90	AQ5, AQ5B	-41.70	LT CRL	64.53	-41.71	-9.07	
05-APR-90	AQ5, AQ5B	LT CRL	LT CRL	-24.31	LT CRL	-5.26	LT CRL
11-APR-90	AQ5, AQ5B	LT CRL	LT CRL	38.53	LT CRL	13.27	
17-APR-90	AQ5, AQ5B	LT CRL	LT CRL	55.55	-3.48	-4.13	
29-APR-90	AQ5, AQ5B	LT CRL	LT CRL	37.39	LT CRL	LT CRL	
05-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	23.80	LT CRL	-7.08	LT CRL
07-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	22.46	LT CRL	-4.70	LT CRL
11-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	-34.38	LT CRL	LT CRL	LT CRL
15-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	-37.35	LT CRL	LT CRL	LT CRL
17-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	42.45	LT CRL	20.94	
23-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	45.35	LT CRL	0.73	LT CRL
29-MAY-90	AQ5, AQ5B	LT CRL	LT CRL	37.36	LT CRL	29.99	

METALS AND ARSENIC PRECISION CALCULATIONS (CONTINUED)

		PERCENT DIFFERENCE					
		CADMIUM	CHROMIUM	COPPER	LEAD	ZINC	ARSENIC
10-JUN-90	AQ5, AQ5B	LT CRL	LT CRL	69.26	LT CRL	12.61	LT CRL
12-JUN-90	AQ5, AQ5B	LT CRL	LT CRL	35.75	LT CRL	15.40	LT CRL
16-JUN-90	AQ5, AQ5B	LT CRL	LT CRL	-1.62	LT CRL	LT CRL	
22-JUN-90	AQ5, AQ5B	LT CRL	LT CRL	-8.70	LT CRL	4.33	
28-JUN-90	AQ5, AQ5B	LT CRL	LT CRL	1.93	LT CRL	62.66	
04-JUL-90	AQ5, AQ5B	LT CRL	LT CRL	-5.51	LT CRL	-8.99	LT CRL
10-JUL-90	AQ5, AQ5B	LT CRL	LT CRL	-34.55	LT CRL	-3.10	
16-JUL-90	AQ5, AQ5B	LT CRL	LT CRL	47.68	LT CRL	-7.70	
22-JUL-90	AQ5, AQ5B	LT CRL	LT CRL	0.12	LT CRL	-4.85	
25-JUL-90	AQ5, AQ5B	LT CRL	LT CRL	-21.57	LT CRL	-21.31	LT CRL
28-JUL-90	AQ5, AQ5B	LT CRL	LT CRL	79.94	LT CRL	30.55	
09-AUG-90	AQ5, AQ5B	LT CRL	LT CRL	36.86	LT CRL	7.46	LT CRL
15-AUG-90	AQ5, AQ5B	LT CRL	LT CRL	86.53	LT CRL	19.21	
21-AUG-90	AQ5, AQ5B	LT CRL	LT CRL	50.21	5.51	11.87	
27-AUG-90	AQ5, AQ5B	LT CRL	LT CRL	86.14	LT CRL	16.76	
02-SEP-90	AQ5, AQ5B	LT CRL	LT CRL	49.81	LT CRL	18.32	
08-SEP-90	AQ5, AQ5B	LT CRL	LT CRL	69.20	LT CRL	5.56	LT CRL
14-SEP-90	AQ5, AQ5B	LT CRL	LT CRL	39.01	LT CRL	14.11	
20-SEP-90	AQ5, AQ5B	LT CRL	LT CRL	22.48	LT CRL	-4.88	
26-SEP-90	AQ5, AQ5B	LT CRL	LT CRL	56.15	LT CRL	0.77	
AVERAGE % DIFFERENCE		-10.30		35.79	0.47	8.53	-24.89
STANDARD DEVIATION					19.02		
UPPER 95% PROB. LIMIT					26.69		
LOWER 95% PROB. LIMIT					-26.03		
NUMBER OF PRECISION CHECKS		6	0	65	31	61	6

FY90 MERCURY PRECISION CALCULATIONS
(in ug/m3)

DATE	SITE	TAG NO.	Hg CONC. (ug/m3)
08-NOV-89	A05	24556	LT CRL
08-NOV-89	A05C	24557	LT CRL
05-DEC-89	A05	24567	LT CRL
05-DEC-89	A05C	24568	LT CRL
07-JAN-90	A05	24583	LT CRL
07-JAN-90	A05C	24584	LT CRL
07-JAN-90	MOBILE	24588	LT CRL
07-JAN-90	MOBILE C	24589	LT CRL
09-JAN-90	A05	24594	LT CRL
09-JAN-90	A05C	24595	LT CRL
09-JAN-90	MOBILE E	24598	LT CRL
09-JAN-90	MOBILE EC	24601	LT CRL
10-JAN-90	A05	24608	LT CRL
10-JAN-90	A05C	24609	LT CRL
10-JAN-90	MOBILE E	24612	LT CRL
10-JAN-90	MOBILE EC	24613	LT CRL
07-MAY-90	A05	24625	LT CRL
07-MAY-90	A05C	24626	LT CRL
11-MAY-90	A05	24635	LT CRL
11-MAY-90	A05C	24636	LT CRL
11-MAY-90	A06	24637	LT CRL
11-MAY-90	A06C	24638	LT CRL
15-MAY-90	A05	24646	LT CRL
15-MAY-90	A05C	24647	LT CRL
15-MAY-90	A06	24648	LT CRL
15-MAY-90	A06C	24652	LT CRL
12-JUN-90	A05	24663	LT CRL
12-JUN-90	A05C	24664	LT CRL
12-JUN-90	A09	24666	LT CRL
12-JUN-90	A09C	24667	LT CRL
25-JUL-90	A05	24707	LT CRL
25-JUL-90	A05C	24708	LT CRL
25-JUL-90	FC2	24701	LT CRL
25-JUL-90	FC2C	24710	LT CRL
20-SEP-90	A05	24750	LT CRL
20-SEP-90	A05C	29751	LT CRL
20-SEP-90	A06	29752	LT CRL
20-SEP-90	A06C	29753	LT CRL
26-SEP-90	A05	29761	LT CRL
26-SEP-90	A05C	29762	LT CRL
26-SEP-90	FC5	29766	LT CRL
26-SEP-90	FC5C	29767	LT CRL

* Number of paired samples is 21.
Number of samples above the LCRL = 0.

CMP FY90 ASBESTOS PRECISION CALCULATIONS
(in fibers/ml)

MO	DAY	YR	SITE NO.	TAG NO.	LAB REPORTED FIBERS/ML
10	6	89	AQ6	AB275	<0.0002
10	6	89	AQ6C	AB278	<0.0002
10	19	89	AQ8	AB283	<0.0002
10	19	89	AQ8C	AB285	<0.0002
10	30	89	AQ12	AB291	<0.0002
10	30	89	AQ12C	AB292	<0.0002
11	12	89	AQ1	AB295	<0.0002
11	12	89	AQ1C	AB299	<0.0002
11	23	89	AQ6	AB303	<0.0002
11	23	89	AQ6C	AB306	<0.0002
12	6	89	AQ8	AB311	<0.0002
12	6	89	AQ8C	AB313	<0.0002
12	18	89	AQ1	AB316	<0.0003
12	18	89	AQ1C	AB320	<0.0003
12	30	89	AQ6	AB324	<0.0002
12	30	89	AQ6C	AB327	<0.0002
1	11	90	AQ8	AB332	<0.0002
1	11	90	AQ8C	AB334	<0.0002
1	23	90	AQ12	AB340	<0.0002
1	23	90	AQ12C	AB341	<0.0002
2	4	90	AQ1	AB344	<0.0002
2	4	90	AQ1C	AB348	<0.0002
3	12	90	AQ6	AB352	<0.0002
3	12	90	AQ6C	AB355	<0.0002
4	4	90	AQ8	AB360	<0.0002
4	4	90	AQ8C	AB362	<0.0002
5	11	90	AQ12	AB368	<0.0002
5	11	90	AQ12C	AB369	<0.0002
6	4	90	AQ1	AB372	<0.0002
6	4	90	AQ1C	AB376	<0.0002
7	16	90	AQ6	AB387	<0.0002
7	16	90	AQ6C	AB390	<0.0002
8	3	90	AQ8	AB395	<0.0002
8	3	90	AQ8C	AB397	<0.0002
9	7	90	AQ12	AB403	<0.0002
9	7	90	AQ12C	AB404	<0.0002

* Number of paired samples is 18.
Number of samples above LCRL = 0.

VOC PRECISION CALCULATIONS FOR FY90

ANALYSIS OF ALL VALUES INCLUDING GREATER THANS

DATE	SITE	TAG NO.	111TCE	112TCE	11DCLE	12DCLE	DCHPD	C6H6	CCL4	CH2CL2	CHCL3	CLC6H5	DBCP
19-DEC-89	A05	24577	>C 7.161	LT CRL	LT CRL	0.178	LT CRL	>C 7.548	>C 1.169	>C 2.839	LT CRL	LT CRL	LT CRL
16-MAR-90	A05	24619	>C 1.987	LT CRL	LT CRL	0.107	LT CRL	>C 0.917	>C 0.757	>C 3.849	0.145	LT CRL	LT CRL
21-MAY-90	A05	24657	>C 2.468	LT CRL	LT CRL	0.069	LT CRL	>C 1.365	>C 0.376	>C 6.371	0.051	LT CRL	LT CRL
27-JUN-90	A05	24678	>C 2.533	LT CRL	LT CRL	0.057	LT CRL	>C 1.402	0.340	>C 1.308	0.091	LT CRL	LT CRL
28-JUN-90	A05	24684	>C 2.536	LT CRL	LT CRL	0.114	LT CRL	>C 2.807	0.382	>C 3.274	0.134	LT CRL	LT CRL
18-JUL-90	A05	24694	>C 1.541	LT CRL	LT CRL	0.130	LT CRL	>C 0.947	>C 0.391	>C 13.262	0.068	LT CRL	LT CRL
27-JUL-90	A05	24715	>C 2.114	LT CRL	LT CRL	LT CRL	LT CRL	0.848	0.354	>C 2.729	LT CRL	LT CRL	LT CRL
02-AUG-90	A05	24725	>C 4.540	LT CRL	LT CRL	LT CRL	LT CRL	>C 6.281	>C 0.576	>C 1.954	0.214	LT CRL	LT CRL
09-AUG-90	A05	24735	>C 4.141	LT CRL	LT CRL	LT CRL	LT CRL	>C 0.955	>C 0.394	>C 6.683	0.088	LT CRL	LT CRL
11-SEP-90	A010	24743	>C 4.610	LT CRL	LT CRL	LT CRL	LT CRL	>C 1.890	>C 0.390	>C 19.837	0.285	LT CRL	LT CRL
19-DEC-89	A05C	24578	>C 7.121	LT CRL	LT CRL	0.210	LT CRL	>C 7.037	>C 1.162	>C 3.677	>C 0.623	LT CRL	LT CRL
16-MAR-90	A05C	24620	>C 1.501	LT CRL	LT CRL	0.099	LT CRL	>C 0.923	>C 0.381	>C 3.229	0.113	LT CRL	LT CRL
21-MAY-90	A05C	24658	>C 2.483	LT CRL	LT CRL	0.075	LT CRL	>C 1.832	>C 0.378	>C 5.769	0.061	LT CRL	LT CRL
27-JUN-90	A05C	24679	>C 2.538	LT CRL	LT CRL	0.081	LT CRL	>C 1.873	0.363	>C 1.311	0.115	LT CRL	LT CRL
28-JUN-90	A05C	24685	>C 2.540	LT CRL	LT CRL	LT CRL	LT CRL	>C 2.342	0.348	>C 3.279	0.096	LT CRL	LT CRL
18-JUL-90	A05C	24695	>C 1.025	LT CRL	LT CRL	0.139	LT CRL	>C 1.418	0.367	>C 6.617	0.068	LT CRL	LT CRL
27-JUL-90	A05C	24716	>C 3.521	LT CRL	LT CRL	0.104	LT CRL	>C 1.856	>C 0.383	>C 1.299	0.085	LT CRL	LT CRL
02-AUG-90	A05C	24726	>C 5.111	LT CRL	LT CRL	LT CRL	LT CRL	>C 4.714	>C 0.779	>C 1.320	0.120	LT CRL	LT CRL
09-AUG-90	A05C	24736	>C 5.162	LT CRL	LT CRL	LT CRL	LT CRL	>C 1.428	>C 0.393	>C 6.664	0.049	LT CRL	LT CRL
11-SEP-90	A010C	24744	>C 4.594	LT CRL	LT CRL	LT CRL	LT CRL	>C 1.412	>C 0.389	>C 6.589	0.341	LT CRL	LT CRL

PERCENT DIFFERENCES

	111TCE	112TCE	11DCLE	12DCLE	DCHPD	C6H6	CCL4	CH2CL2	CHCL3	CLC6H5	DBCP
	-0.56	LT CRL	LT CRL	16.73	LT CRL	-7.01	-0.56	25.71	LT CRL	LT CRL	LT CRL
	-27.90	LT CRL	LT CRL	-8.41	LT CRL	0.68	-66.05	-17.50	-24.78	LT CRL	LT CRL
	0.61	LT CRL	LT CRL	7.06	LT CRL	29.17	0.61	-9.92	17.27	LT CRL	LT CRL
	0.21	LT CRL	LT CRL	34.69	LT CRL	28.78	6.80	0.21	23.46	LT CRL	LT CRL
	0.14	LT CRL	LT CRL	LT CRL	LT CRL	-18.04	-9.38	0.14	-33.20	LT CRL	LT CRL
	-40.20	LT CRL	LT CRL	6.93	LT CRL	39.80	-6.41	66.85	-0.21	LT CRL	LT CRL
	49.94	LT CRL	LT CRL	LT CRL	LT CRL	74.52	7.84	-71.03	LT CRL	LT CRL	LT CRL
	11.84	LT CRL	LT CRL	LT CRL	LT CRL	-28.49	29.86	-38.73	-55.93	LT CRL	LT CRL
	21.94	LT CRL	LT CRL	LT CRL	LT CRL	39.73	-0.28	-0.28	-57.40	LT CRL	LT CRL
	-0.35	LT CRL	LT CRL	LT CRL	LT CRL	-28.91	-0.35	-100.26	18.11	LT CRL	LT CRL
AVERAGE % DIFFERENCE	1.57			11.40		13.02	-3.79	-27.85	-14.08		
NUMBER OF PAIRED SAMPLES	10			5		10	10	10	8		

VOC PRECISION CALCULATIONS FOR FY90 (CONTINUED)
ANALYSIS OF ALL VALUES INCLUDING GREATER THANS

DATE	SITE	TAG NO.	DCPD	DMDS	ETC6H5	MEC6H5	MIBK	NNDMEA	12DMB	T12DCE	TCLEE	TRCLE	XYLENE
19-DEC-89	AQ5	24577	LT CRL	LT CRL	>C 3.776	>C 6.743	>C 0.694	LT CRL	>C 4.934	LT CRL	>C 4.516	0.316	>C 8.380
16-MAR-90	AQ5	24519	LT CRL	LT CRL	>C 0.437	>C 4.367	LT CRL	LT CRL	>C 0.484	LT CRL	>C 1.935	LT CRL	>C 1.285
21-MAY-90	AQ5	24657	LT CRL	LT CRL	>C 0.434	>C 5.421	LT CRL	LT CRL	>C 0.962	LT CRL	>C 1.922	LT CRL	>C 1.702
27-JUN-90	AQ5	24678	LT CRL	LT CRL	>C 0.890	>C 16.693	0.270	LT CRL	>C 0.987	LT CRL	>C 2.630	LT CRL	>C 2.184
28-JUN-90	AQ5	24684	LT CRL	LT CRL	>C 1.337	>C 11.144	0.413	LT CRL	>C 1.483	LT CRL	>C 1.976	0.112	>C 3.499
18-JUL-90	AQ5	24694	LT CRL	LT CRL	0.307	>C 2.821	0.107	LT CRL	0.425	LT CRL	0.594	LT CRL	>C 0.886
27-JUL-90	AQ5	24715	LT CRL	LT CRL	0.437	>C 3.484	LT CRL	LT CRL	0.567	LT CRL	0.686	LT CRL	>C 1.823
02-AUG-90	AQ5	24725	LT CRL	LT CRL	0.572	>C 16.624	LT CRL	LT CRL	>C 0.737	LT CRL	>C 5.894	LT CRL	>C 3.262
07-AUG-90	AQ5	24735	LT CRL	LT CRL	>C 0.910	>C 5.687	LT CRL	LT CRL	>C 1.513	LT CRL	>C 1.344	0.109	>C 3.571
11-SEP-90	AQ10	24743	LT CRL	LT CRL	0.180	>C 5.627	0.204	LT CRL	0.210	LT CRL	>C 0.665	0.156	0.707
19-DEC-89	AQ5C	24578	LT CRL	LT CRL	>C 4.157	>C 6.705	>C 0.829	LT CRL	>C 4.956	LT CRL	>C 4.953	0.235	>C 9.210
16-MAR-90	AQ5C	24620	LT CRL	LT CRL	>C 0.440	>C 4.397	LT CRL	LT CRL	>C 0.488	LT CRL	>C 1.948	LT CRL	>C 1.725
21-MAY-90	AQ5C	24658	LT CRL	LT CRL	>C 0.873	>C 10.909	LT CRL	LT CRL	>C 0.968	LT CRL	>C 2.579	LT CRL	>C 1.713
27-JUN-90	AQ5C	24679	LT CRL	LT CRL	>C 0.892	>C 16.728	0.317	LT CRL	>C 1.484	LT CRL	>C 2.636	0.106	>C 2.626
28-JUN-90	AQ5C	24685	LT CRL	LT CRL	>C 0.893	>C 0.558	LT CRL	LT CRL	>C 1.485	LT CRL	>C 1.978	0.080	>C 3.066
18-JUL-90	AQ5C	24695	LT CRL	LT CRL	0.257	>C 2.252	0.088	LT CRL	0.370	LT CRL	0.546	LT CRL	>C 0.884
27-JUL-90	AQ5C	24716	LT CRL	LT CRL	>C 0.442	>C 5.526	LT CRL	LT CRL	>C 0.980	LT CRL	>C 0.653	LT CRL	>C 1.735
02-AUG-90	AQ5C	24726	LT CRL	LT CRL	>C 0.898	>C 11.230	LT CRL	LT CRL	>C 1.494	LT CRL	>C 3.982	0.107	>C 4.407
09-AUG-90	AQ5C	24736	LT CRL	LT CRL	>C 1.015	>C 17.012	LT CRL	LT CRL	>C 3.521	LT CRL	>C 3.351	LT CRL	>C 8.902
11-SEP-90	AQ10C	24744	LT CRL	LT CRL	>C 0.449	>C 5.607	0.282	LT CRL	>C 0.995	LT CRL	>C 1.325	0.144	>C 2.201
					PERCENT DIFFERENCES								
			LT CRL	LT CRL	9.61	-0.56	17.63	LT CRL	0.45	LT CRL	9.23	-29.67	9.44
			LT CRL	LT CRL	0.68	0.68	LT CRL	LT CRL	0.68	LT CRL	0.68	LT CRL	29.24
			LT CRL	LT CRL	67.20	67.21	LT CRL	LT CRL	0.61	LT CRL	29.17	LT CRL	0.61
			LT CRL	LT CRL	0.21	0.21	15.83	LT CRL	40.20	LT CRL	0.21	LT CRL	18.39
			LT CRL	LT CRL	-39.87	-180.93	LT CRL	LT CRL	0.14	LT CRL	0.14	-33.03	-13.19
			LT CRL	LT CRL	-17.81	-22.43	-19.26	LT CRL	-14.05	LT CRL	-8.40	LT CRL	-0.21
			LT CRL	LT CRL	1.25	45.33	LT CRL	LT CRL	53.50	LT CRL	-4.94	LT CRL	-4.95
			LT CRL	LT CRL	44.42	-38.73	LT CRL	LT CRL	67.83	LT CRL	-38.73	LT CRL	29.87
			LT CRL	LT CRL	66.41	99.79	LT CRL	LT CRL	79.76	LT CRL	85.48	LT CRL	85.48
			LT CRL	LT CRL	85.44	-0.35	32.04	LT CRL	130.38	LT CRL	66.35	-7.49	102.77
AVERAGE % DIFFERENCE					21.75	-2.98	11.56		-3.79		13.92	-23.39	25.74
NUMBER OF PAIRED SAMPLES					10	10	4		10		10	3	10

VOC PRECISION CALCULATIONS FOR FY90

DATE	SITE	TAG NO.	111TCE	112TCE	11DCLE	12DCLE	BCHPD	C6H6	CCL4	CH2CL2	CHCL3	CLC6H5	DBCP
19-DEC-89	AQ5	24577	GT CRL	LT CRL	LT CRL	0.178	LT CRL	GT CRL	GT CRL	GT CRL	LT CRL	LT CRL	LT CRL
16-MAR-90	AQ5	24619	GT CRL	LT CRL	LT CRL	0.107	LT CRL	GT CRL	GT CRL	GT CRL	0.145	LT CRL	LT CRL
21-MAY-90	AQ5	24657	GT CRL	LT CRL	LT CRL	0.069	LT CRL	GT CRL	GT CRL	GT CRL	0.051	LT CRL	LT CRL
27-JUN-90	AQ5	24678	GT CRL	LT CRL	LT CRL	0.057	LT CRL	GT CRL	0.340	GT CRL	0.091	LT CRL	LT CRL
28-JUN-90	AQ5	24684	GT CRL	LT CRL	LT CRL	0.114	LT CRL	GT CRL	0.382	GT CRL	0.134	LT CRL	LT CRL
18-JUL-90	AQ5	24694	GT CRL	LT CRL	LT CRL	0.130	LT CRL	GT CRL	GT CRL	GT CRL	0.068	LT CRL	LT CRL
27-JUL-90	AQ5	24715	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	0.848	0.354	GT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ5	24725	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	0.214	LT CRL	LT CRL
09-AUG-90	AQ5	24735	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	0.088	LT CRL	LT CRL
11-SEP-90	AQ10	24743	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	0.285	LT CRL	LT CRL
19-DEC-89	AQ5C	24578	GT CRL	LT CRL	LT CRL	0.210	LT CRL	GT CRL	GT CRL	GT CRL	GT CRL	LT CRL	LT CRL
16-MAR-90	AQ5C	24620	GT CRL	LT CRL	LT CRL	0.099	LT CRL	GT CRL	GT CRL	GT CRL	0.113	LT CRL	LT CRL
21-MAY-90	AQ5C	25658	GT CRL	LT CRL	LT CRL	0.075	LT CRL	GT CRL	GT CRL	GT CRL	0.061	LT CRL	LT CRL
27-JUN-90	AQ5C	24679	GT CRL	LT CRL	LT CRL	0.081	LT CRL	GT CRL	0.363	GT CRL	0.115	LT CRL	LT CRL
28-JUN-90	AQ5C	24685	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	0.348	GT CRL	0.096	LT CRL	LT CRL
18-JUL-90	AQ5C	24695	GT CRL	LT CRL	LT CRL	0.139	LT CRL	GT CRL	0.367	GT CRL	0.068	LT CRL	LT CRL
27-JUL-90	AQ5C	24716	GT CRL	LT CRL	LT CRL	0.104	LT CRL	GT CRL	GT CRL	GT CRL	0.085	LT CRL	LT CRL
02-AUG-90	AQ5C	24726	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	0.120	LT CRL	LT CRL
09-AUG-90	AQ5C	24736	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	0.049	LT CRL	LT CRL
11-SEP-90	AQ10C	24744	GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	0.341	LT CRL	LT CRL
						PERCENT DIFFERENCES							
			GT CRL	LT CRL	LT CRL	16.73	LT CRL	GT CRL	GT CRL	GT CRL	LT CRL	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	-8.41	LT CRL	GT CRL	GT CRL	GT CRL	-24.78	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	7.06	LT CRL	GT CRL	GT CRL	GT CRL	17.27	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	34.69	LT CRL	GT CRL	6.80	GT CRL	23.46	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	-9.38	GT CRL	-33.29	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	6.93	LT CRL	GT CRL	GT CRL	GT CRL	-0.21	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	LT CRL	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	-55.93	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	-57.40	LT CRL	LT CRL
			GT CRL	LT CRL	LT CRL	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	18.11	LT CRL	LT CRL
AVERAGE % DIFFERENCE						11.40			-1.29		-14.0[illegible]		
NUMBER OF PAIRED SAMPLES						5			2		[illegible]		

VOC PRECISION CALCULATIONS FOR FY90 (CONTINUED)

DATE	SITE	TAG NO.	DCPD	DMDS	ETC6H5	MEC6H5	MIBK	MNDMEA	12DMB	T12DCE	TCLEE	TRCLE	XYLENE
19-DEC-89	A05	24577	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL	0.316	GT CRL
16-MAR-90	A05	24619	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
21-MAY-90	A05	24657	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
27-JUN-90	A05	24678	LT CRL	LT CRL	GT CRL	GT CRL	0.270	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
28-JUN-90	A05	24684	LT CRL	LT CRL	GT CRL	GT CRL	0.413	LT CRL	GT CRL	LT CRL	GT CRL	0.112	GT CRL
18-JUL-90	A05	24694	LT CRL	LT CRL	0.307	GT CRL	0.107	LT CRL	0.425	LT CRL	0.594	LT CRL	GT CRL
27-JUL-90	A05	24715	LT CRL	LT CRL	0.437	GT CRL	LT CRL	LT CRL	0.567	LT CRL	0.686	LT CRL	GT CRL
02-AUG-90	A05	24725	LT CRL	LT CRL	0.572	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
09-AUG-90	A05	24735	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	0.109	GT CRL
11-SEP-90	A010	24743	LT CRL	LT CRL	0.180	GT CRL	0.204	LT CRL	0.210	LT CRL	GT CRL	0.156	0.707
19-DEC-89	A05C	24578	LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL	0.235	GT CRL
16-MAR-90	A05C	24620	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
21-MAY-90	A05C	25658	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
27-JUN-90	A05C	24679	LT CRL	LT CRL	GT CRL	GT CRL	0.317	LT CRL	GT CRL	LT CRL	GT CRL	0.106	GT CRL
28-JUN-90	A05C	24685	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	0.080	GT CRL
18-JUL-90	A05C	24695	LT CRL	LT CRL	0.257	GT CRL	0.088	LT CRL	0.370	LT CRL	0.546	LT CRL	GT CRL
27-JUL-90	A05C	24716	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
02-AUG-90	A05C	24726	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	0.107	GT CRL
09-AUG-90	A05C	24736	LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
11-SEP-90	A010C	24744	LT CRL	LT CRL	GT CRL	GT CRL	0.282	LT CRL	GT CRL	LT CRL	GT CRL	0.144	GT CRL
						PERCENT DIFFERENCES							
			LT CRL	LT CRL	GT CRL	GT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL	-29.67	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	15.83	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	-33.03	GT CRL
			LT CRL	LT CRL	-17.81	GT CRL	-19.26	LT CRL	-14.05	LT CRL	-8.40	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	LT CRL	LT CRL	GT CRL	LT CRL	GT CRL	LT CRL	GT CRL
			LT CRL	LT CRL	GT CRL	GT CRL	32.04	LT CRL	GT CRL	LT CRL	GT CRL	-7.49	GT CRL
AVERAGE % DIFFERENCE					-17.81		9.54		-14.05		-8.40	-23.39	
NUMBER OF PAIRED SAMPLES					1		3		1		1	3	

SVOC PRECISION CALCULATIONS FOR FY90

DATE	SITE	TAG NO.	1.3DBD4	2CLPD4	ATZ	CLDAN	CPMSO	CPMSO2	DEFD4	DLDRN
21-MAY-90	AQ5E	20334	0.18788	0.14719	LT CRL	LT CRL	LT CRL	LT CRL	0.22905	LT CRL
29-AUG-90	AQ10	51P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
11-SEP-90	AQ10	62P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
18-JUL-90	AQ26	7P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
02-AUG-90	AQ26	17P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
27-AUG-90	AQ36	48P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
21-MAY-90	AQ5F	20335	0.23040	0.18404	LT CRL	LT CRL	LT CRL	LT CRL	0.25850	LT CRL
29-AUG-90	AQ10C	52P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
11-SEP-90	AQ10C	68P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
18-JUL-90	AQ26C	8P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
02-AUG-90	AQ26C	23P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
27-AUG-90	AQ36C	49P			LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
					PERCENT DIFFERENCES					
21-MAY-90	AQ5E		20.33	22.25	LT CRL	LT CRL	LT CRL	LT CRL	12.08	LT CRL
29-AUG-90	AQ10		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL

DATE	SITE	TAG NO.	DNOPD4	EDRIN	ISODR	MLTHN	PPDDE	PPDDT	PRTHN	SUPONA
21-MAY-90	AQ5E	20334	0.22342	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
29-AUG-90	AQ10	51P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10	62P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26	7P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26	17P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36	48P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
21-MAY-90	AQ5F	20335	0.23333	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
29-AUG-90	AQ10C	52P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10C	68P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26C	8P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26C	23P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36C	49P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
					PERCENT DIFFERENCES					
21-MAY-90	AQ5E		4.34	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL		LT CRL
29-AUG-90	AQ10		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL

SVOC PRECISION CALCULATIONS FOR FY90 (CONTINUED)

DATE	SITE	TAG NO.	2FBP	ALDRIN	CMPS	DBCP	DCPD	DDVP	DIMP	DITH
29-AUG-90	AQ10	51P	0.17381	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10	62P	0.15991	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26	7P	0.16873	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26	17P	0.17301	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36	48P	0.22660	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
29-AUG-90	AQ10C	52P	0.16891	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10C	68P	0.13832	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26C	8P	0.20674	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26C	23P	0.15450	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36C	49P	0.17423	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
					PERCENT DIFFERENCES					
29-AUG-90	AQ10		-2.90	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
11-SEP-90	AQ10		-15.61	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-JUL-90	AQ26		18.39	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
02-AUG-90	AQ26		-11.98	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
27-AUG-90	AQ36		-30.06	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
AVERAGE PERCENT DIFFERENCE			-8.43							

DATE	SITE	TAG NO.	DMMP	HCBD	NBD5	OXAT	TERD14
29-AUG-90	AQ10	51P	LT CRL	LT CRL	0.17223	LT CRL	0.27171
11-SEP-90	AQ10	62P	LT CRL	LT CRL	0.16098	LT CRL	0.14664
18-JUL-90	AQ26	7P	LT CRL	LT CRL	0.16760	LT CRL	0.24529
02-AUG-90	AQ26	17P	LT CRL	LT CRL	0.18337	LT CRL	0.20460
27-AUG-90	AQ36	48P	LT CRL	LT CRL	0.20414	LT CRL	0.35591
29-AUG-90	AQ10C	52P	LT CRL	LT CRL	0.16003	LT CRL	0.24873
11-SEP-90	AQ10C	68P	LT CRL	LT CRL	0.13746	LT CRL	0.13502
18-JUL-90	AQ26C	8P	LT CRL	LT CRL	0.20056	LT CRL	0.30681
02-AUG-90	AQ26C	23P	LT CRL	LT CRL	0.15424	LT CRL	0.16394
27-AUG-90	AQ36C	49P	LT CRL	LT CRL	0.15393	LT CRL	0.23576
				PERCENT DIFFERENCES			
29-AUG-90	AQ10		LT CRL	LT CRL	-7.62	LT CRL	-9.24
11-SEP-90	AQ10		LT CRL	LT CRL	-17.11	LT CRL	-8.61
18-JUL-90	AQ26		LT CRL	LT CRL	16.43	LT CRL	20.05
02-AUG-90	AQ26		LT CRL	LT CRL	-18.89	LT CRL	-24.80
27-AUG-90	AQ36		LT CRL	LT CRL	-32.62	LT CRL	-50.96
AVERAGE PERCENT DIFFERENCE					-11.96		-14.71

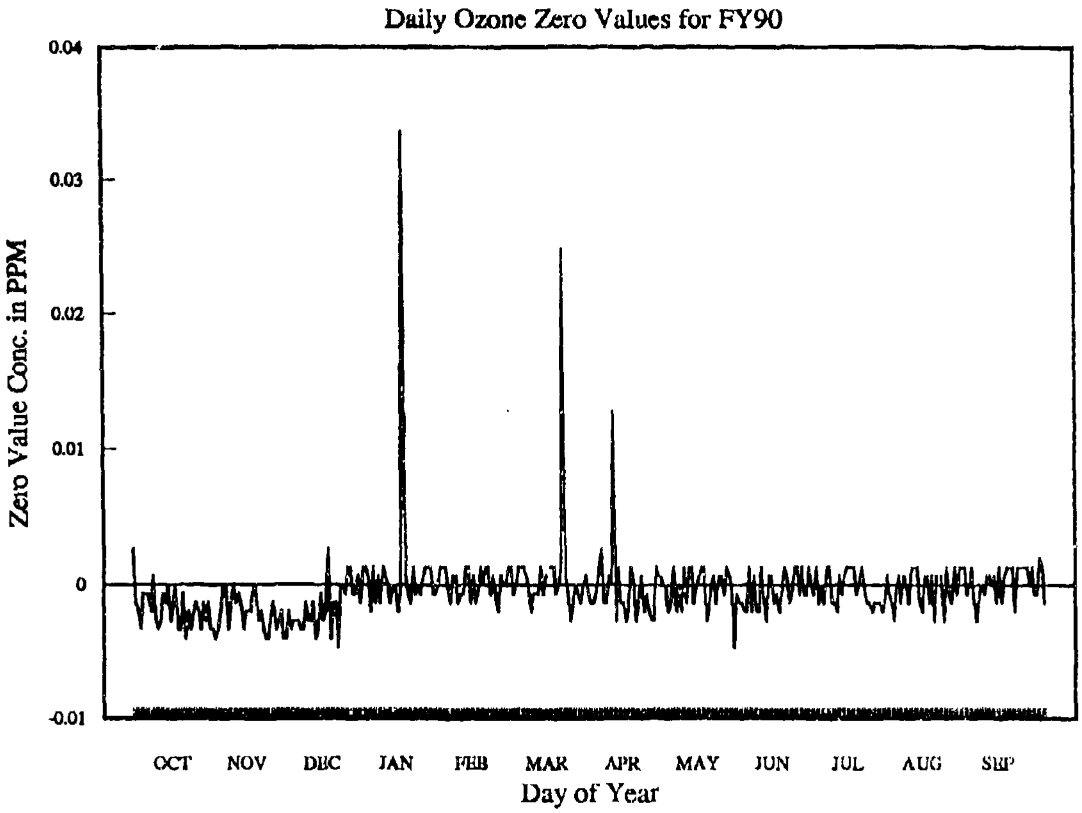
OCP PRECISION CALCULATIONS

DATE	SITE NO.	TAG NO.	44DCBZ	ALDRN	CLDAN	DLDRN	ENDRN	ISODR	PPDDE	PPDDT
17-NOV-89	AQ5E	22321	0.00585	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
29-JAN-90	AQ5E	22443	0.00651	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-MAR-90	AQ5E	22678	0.00634	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
30-MAR-90	AQ5E	20263	0.00680	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
23-APR-90	AQ5E	20282	0.00688	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
16-MAY-90	AQ5E	20330	0.00634	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
10-JUN-90	AQ5E	20404	0.00664	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
16-JUL-90	AQ5E	4P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
21-AUG-90	AQ5E	42P		LT CRL	0.00120	0.00039	LT CRL	LT CRL	LT CRL	LT CRL
17-NOV-89	AQ5F	22322	0.00625	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
29-JAN-90	AQ5F	22444	0.00618	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-MAR-90	AQ5F	22679	0.00681	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
30-MAR-90	AQ5F	20264	0.00684	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
23-APR-90	AQ5F	20283	0.00751	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
16-MAY-90	AQ5F	20328	0.00663	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
10-JUN-90	AQ5F	20405	0.00700	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
16-JUL-90	AQ5F	5P		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
21-AUG-90	AQ5F	43P		LT CRL	0.00097	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL

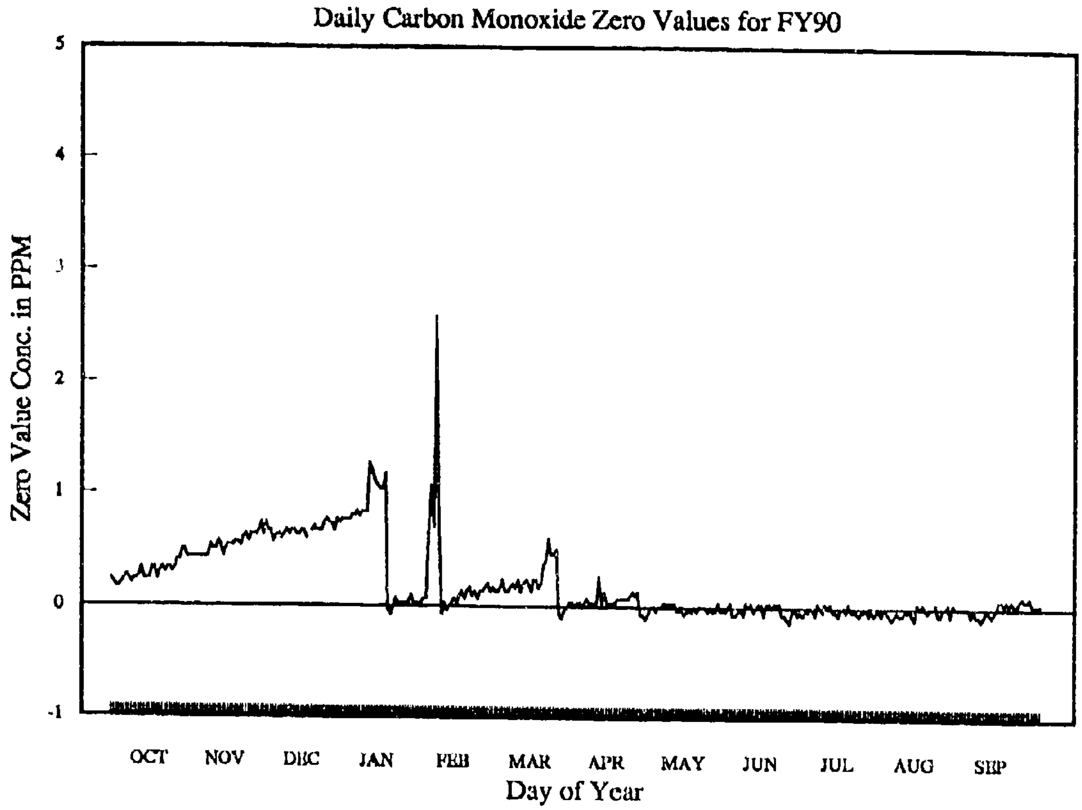
PERCENT DIFFERENCES

DATE	SITE	44DCBZ	ALDRN	CLDAN	DLDRN	ENDRN	ISODR	PPDDE	PPDDT
17-NOV-89	AQ5E, AQ5F	6.73	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
29-JAN-90	AQ5E, AQ5F	-5.17	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
18-MAR-90	AQ5E, AQ5F	7.13	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
30-MAR-90	AQ5E, AQ5F	0.65	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
23-APR-90	AQ5E, AQ5F	8.66	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
16-MAY-90	AQ5E, AQ5F	4.42	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
10-JUN-90	AQ5E, AQ5F	5.21	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
16-JUL-90	AQ5E, AQ5F		LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
21-AUG-90	AQ5E, AQ5F		LT CRL	-20.68	LT CRL	LT CRL	LT CRL	LT CRL	LT CRL
AVE. % DIFFERENCE		3.95		-20.68					

H2 Daily Zero and Span Data for Continuous Gaseous Monitors

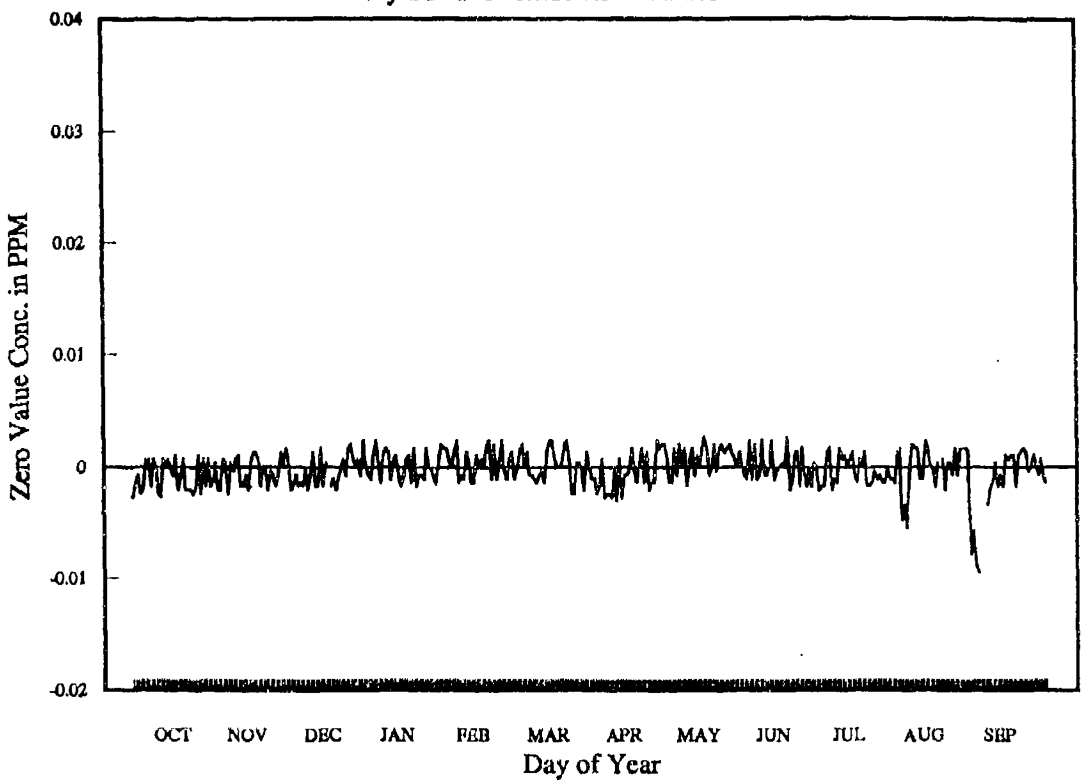


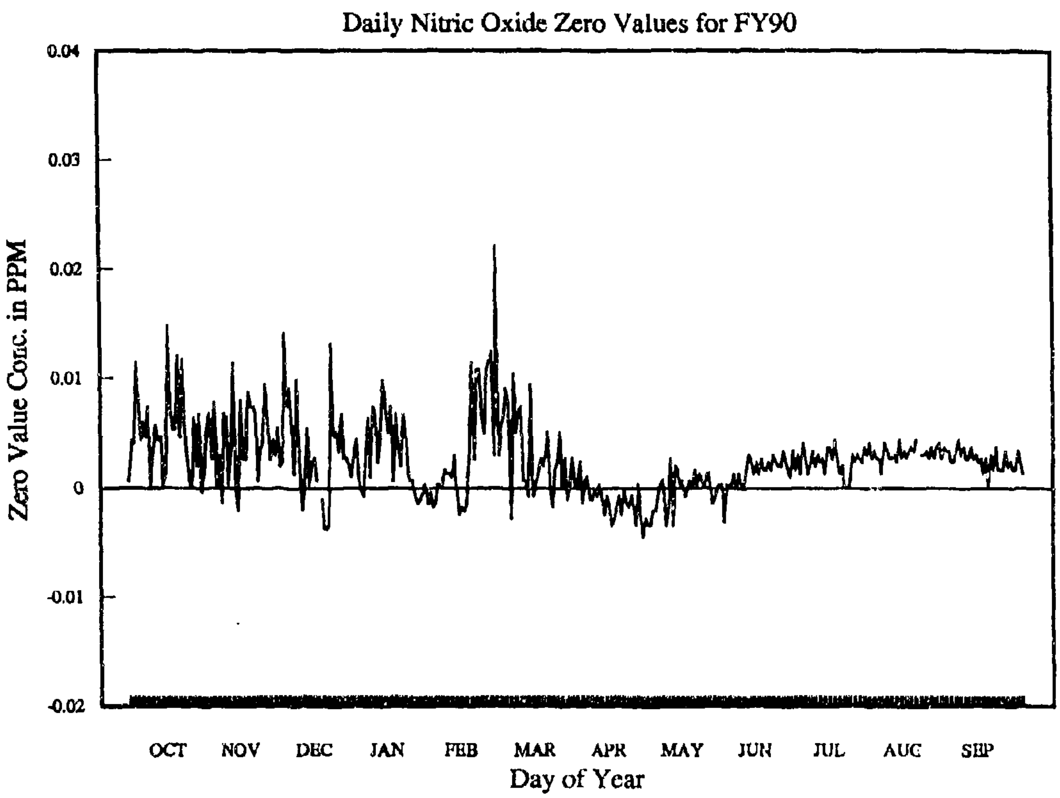
Daily Ozone Zero Values for FY90
0.04
0.03
0.02
0.01
0
-0.01
Zero Value Conc. in PPM
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year

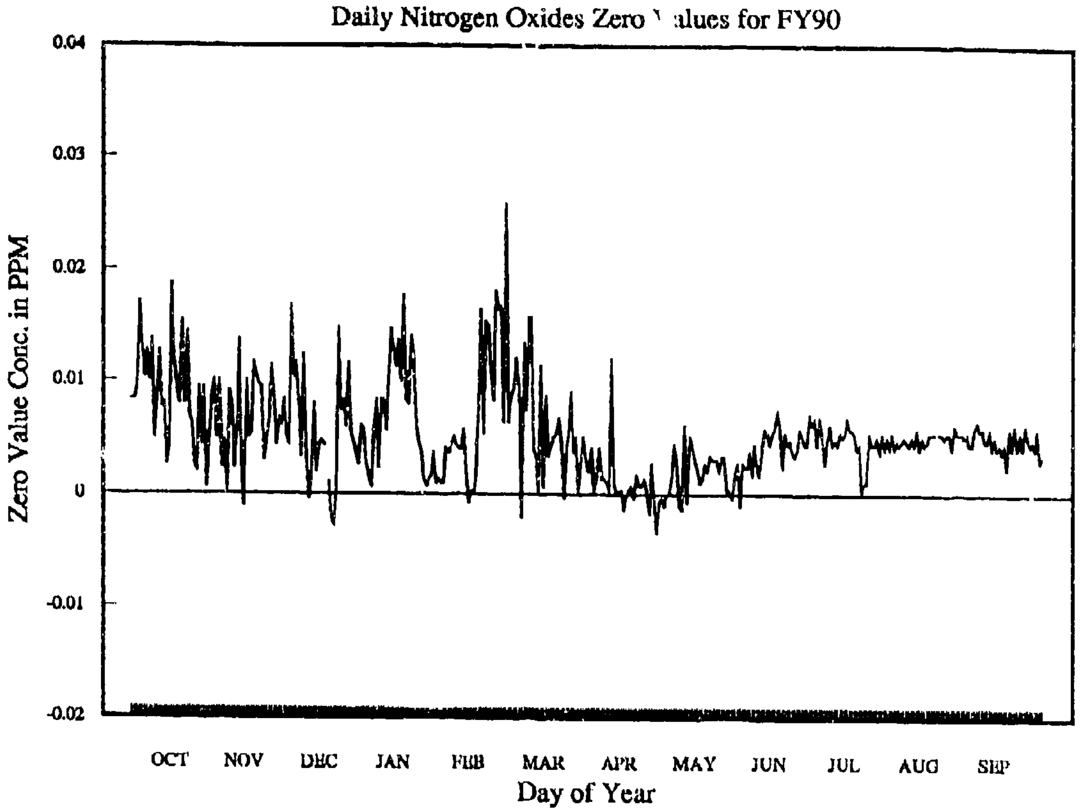


Daily Carbon Monoxide Zero Values for FY90
Zero Value Conc. in PPM
5
4
3
2
1
0
-1
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year

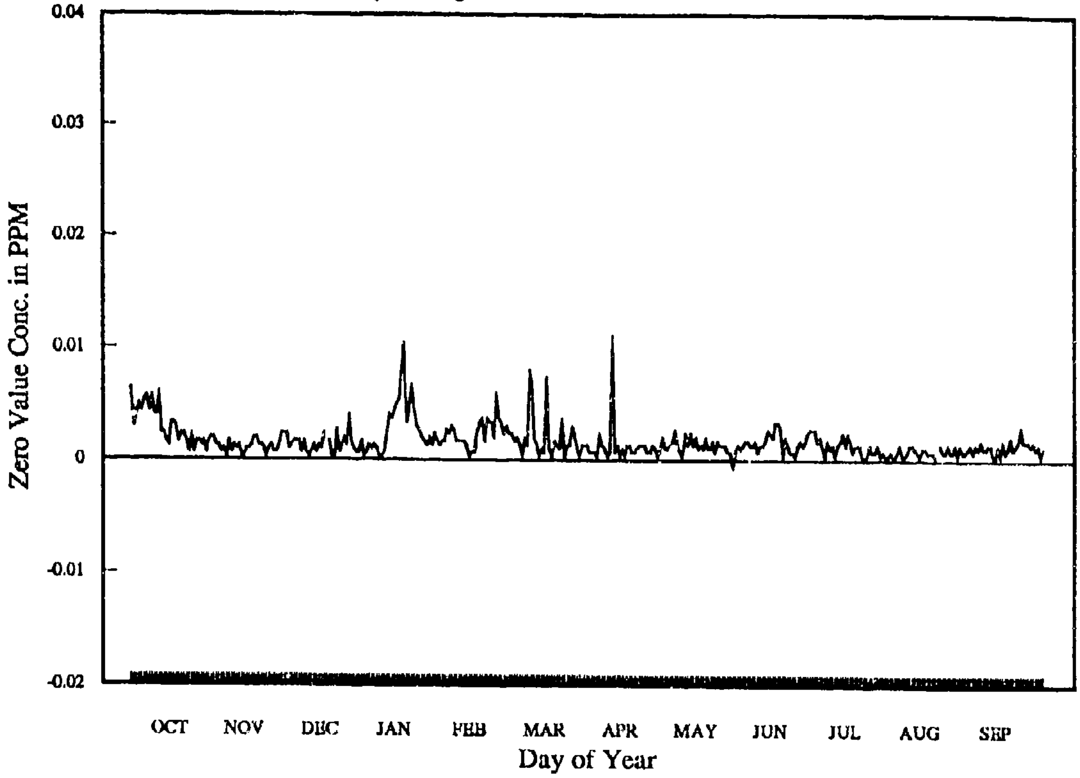
Daily Sulfur Dioxide Zero Values for FY90

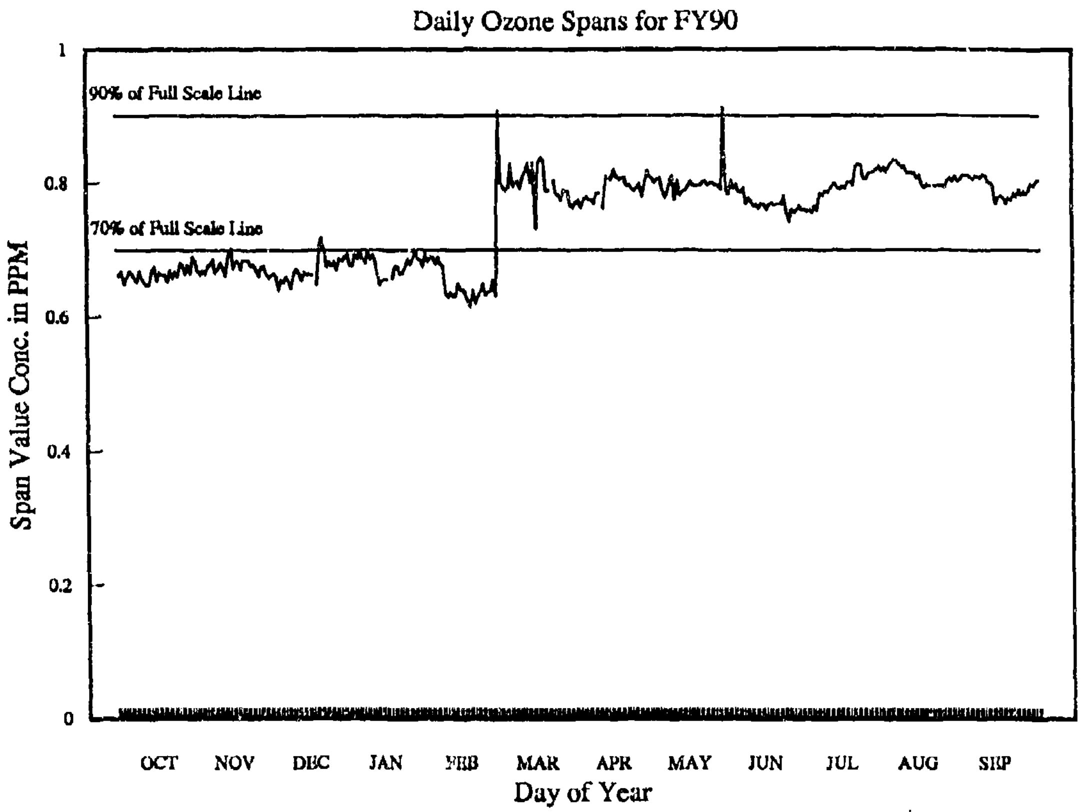


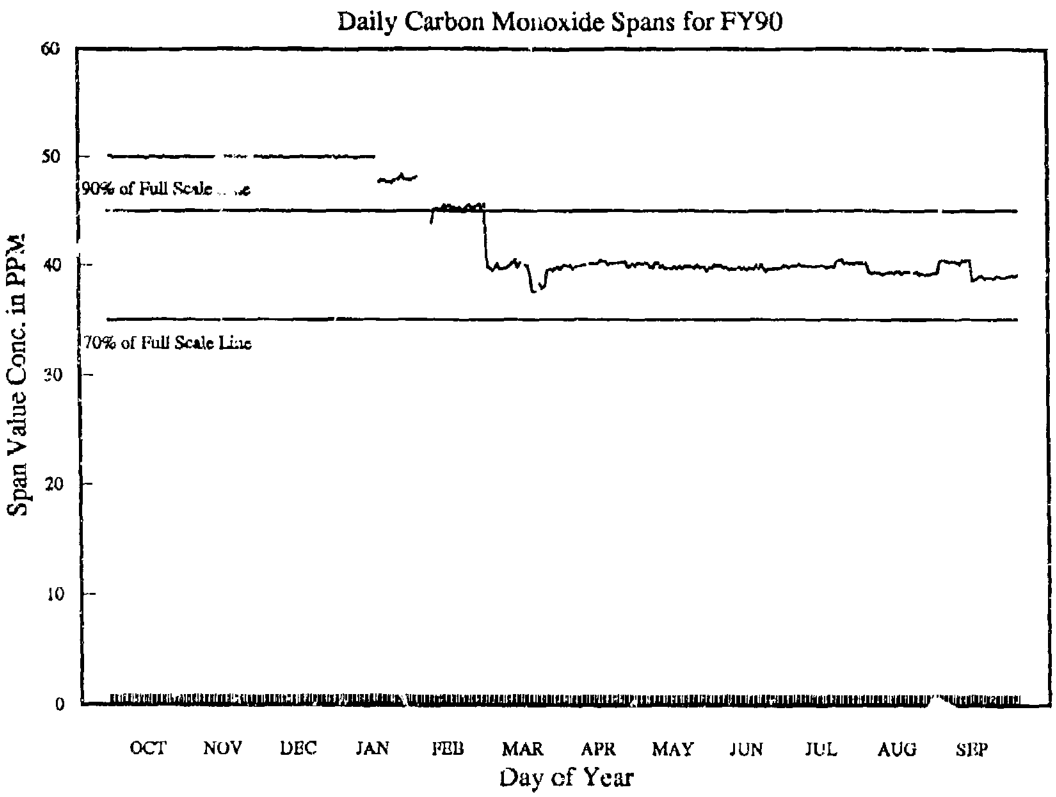

Daily Nitric Oxide Zero Values for FY90
0.04
0.03
0.02
0.01
0
-0.01
-0.02
Zero Value Conc. in PPM
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year


Daily Nitrogen Oxides Zero Values for FY90
Zero Value Conc. in PPM
0.04
0.03
0.02
0.01
0
-0.01
-0.02
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year

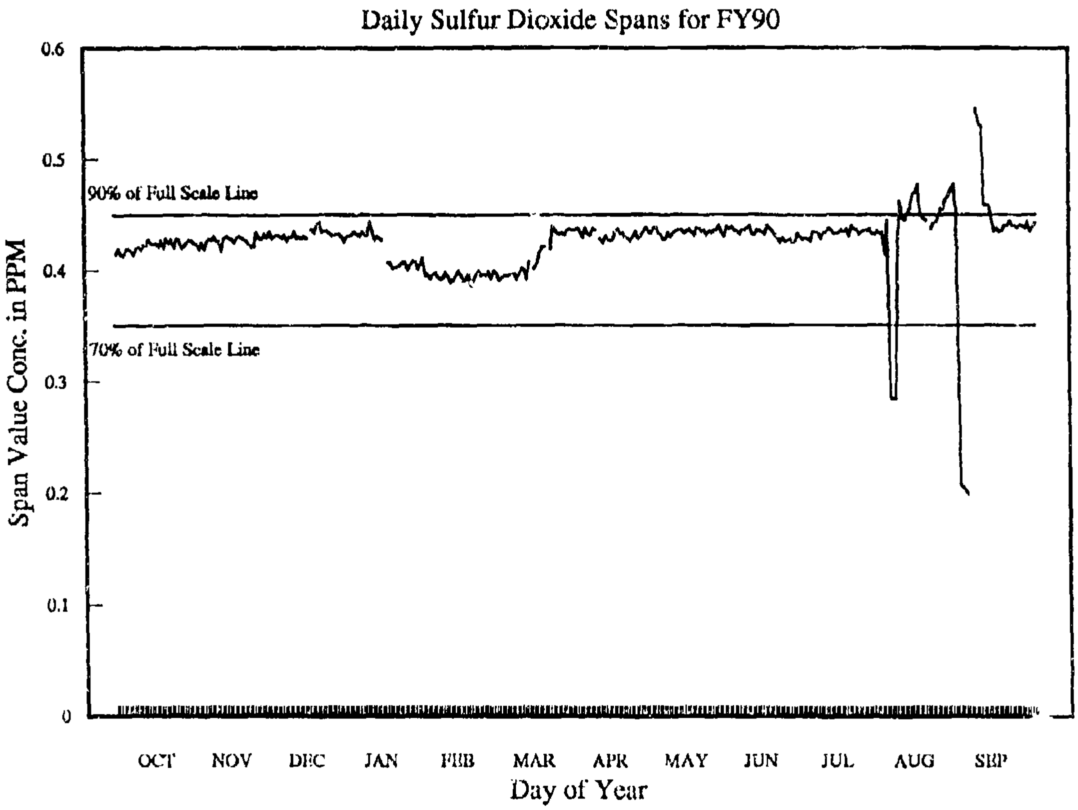
Daily Nitrogen Dioxide Zero Values for FY90



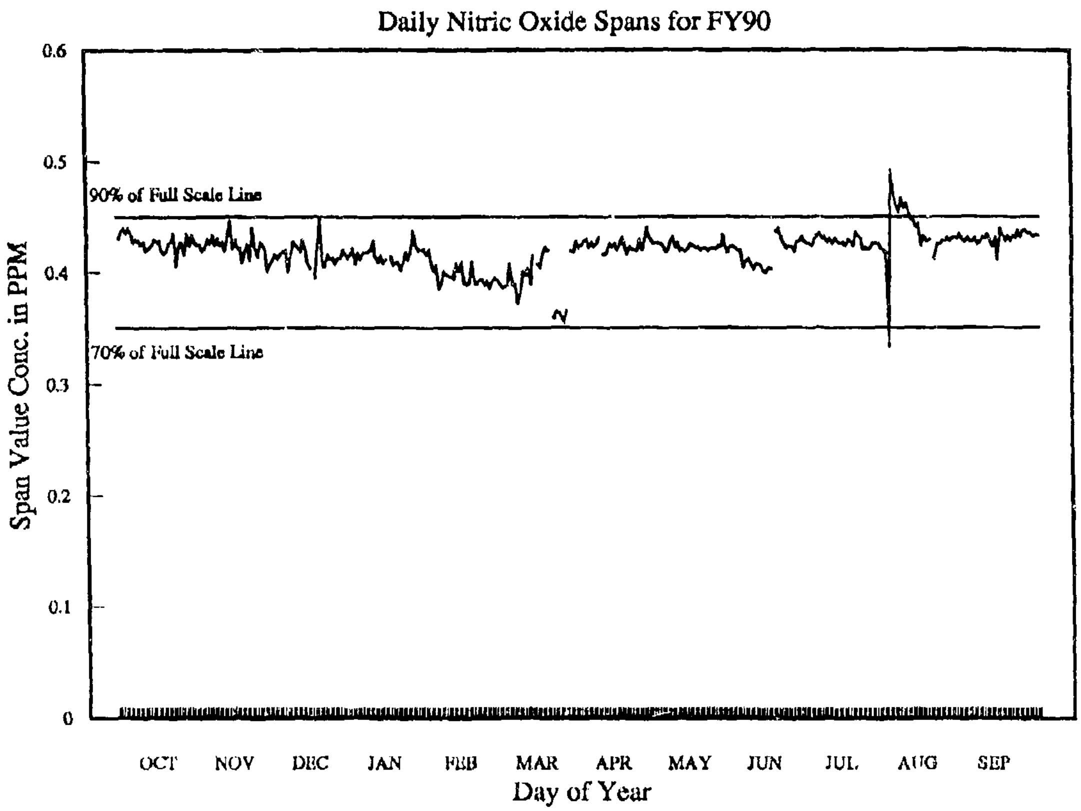

Daily Ozone Spans for FY90
90% of Full Scale Line
70% of Full Scale Line
Span Value Conc. in PPM
1
0.8
0.6
0.4
0.2
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year

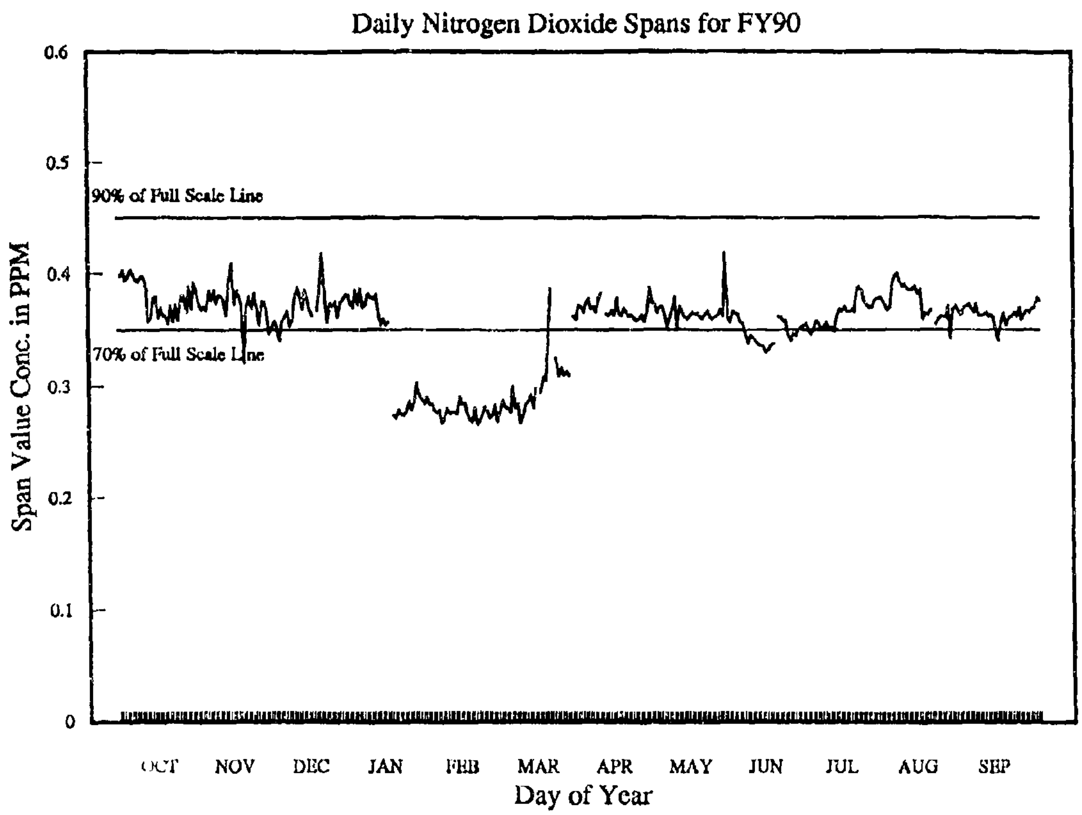


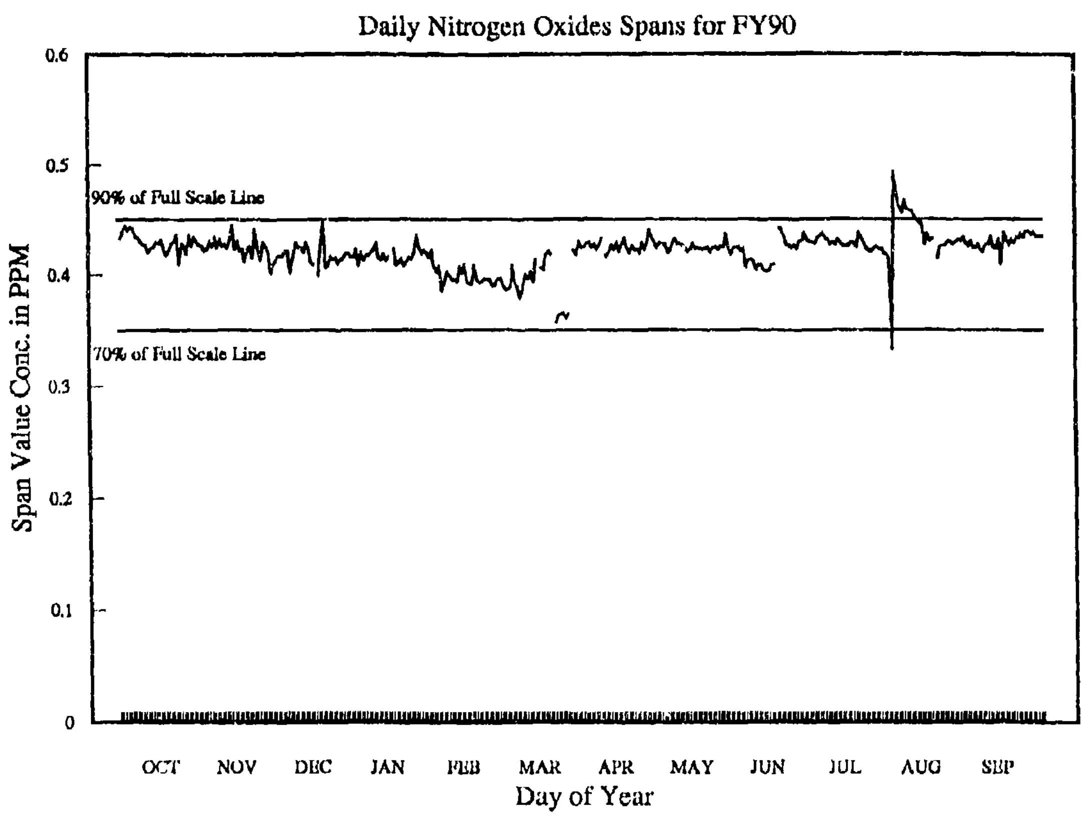
Daily Carbon Monoxide Spans for FY90
60
50
40
30
20
10
0
90% of Full Scale Line
70% of Full Scale Line
Span Value Conc. in PPM
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year



Daily Sulfur Dioxide Spans for FY90
90% of Full Scale Line
70% of Full Scale Line
Span Value Conc. in PPM
0.6
0.5
0.4
0.3
0.2
0.1
0
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year


Daily Nitric Oxide Spans for FY90
Span Value Conc. in PPM
0.6
0.5
0.4
0.3
0.2
0.1
0
90% of Full Scale Line
70% of Full Scale Line
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year


Daily Nitrogen Dioxide Spans for FY90
0.6
0.5
0.4
0.3
0.2
0.1
0
90% of Full Scale Line
70% of Full Scale Line
Span Value Conc. in PPM
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year



Daily Nitrogen Oxides Spans for FY90
Span Value Conc. in PPM
0.6
0.5
0.4
0.3
0.2
0.1
0
90% of Full Scale Line
70% of Full Scale Line
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
Day of Year

113 Audit Results

Summary Tables from
First Quarter 1990 Audit Report

TABLE 4.1-1 (Sheet 1 of 2)
HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

TSP SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow(SCFM)	Percent Difference
1A	40.2	39.82	-0.9
2A	41.6	39.85	-4.2
3A	41.0	40.05	-2.3
4A	40.4	40.10	-0.8
5A	40.3	40.20	-0.2
5B	41.1	40.28	-2.0
6A	40.6	39.89	-1.8
7A	40.2	39.92	-0.7
8A	40.9	40.13	-1.9
9A	40.8	39.99	-2.1
10A	40.3	40.04	-0.6
11A	39.8	39.95	+0.4
12A	39.2	39.76	+1.5
M1A	41.4	40.34	-2.6
M2A	41.3	40.21	-2.6
M3A	40.4	40.17	-0.5
M4A	39.7	39.64	-0.3

TABLE 4.1-1 (Sheet 2 of 2)
HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

PM_{10} SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow (SCFM)	Percent Difference
1B	35.4	35.82	+1.1
2B	36.6	36.05	-1.5
3B	36.1	35.99	-0.3
5C	35.5	36.09	+1.6
5D	35.7	35.89	+0.5
9B	34.3	35.78	+4.2

PUF SAMPLERS

Site	Audit Flow (SLM)	Operator Determined Flow (SLM)	Percent Difference
1C	195.5	200.7	+2.7
2C	193.2	194.7	+0.8
3C	200.0	204.9	+2.5
5E	214.1	219.5	+2.5
5F	211.2	226.1	+7.0
5G	201.7	194.4	-3.6
M1C	195.2	201.3	-3.1
M2C	204.3	196.5	-3.8
M3C	198.8	200.6	+0.9
M4C	192.4	196.6	+2.2

TABLE 4.2-1
SAMPLE PUMPS
ASBESTOS - VOC - MERCURY
AUDIT SUMMARY

Instrument/ID	Audit Flow (SCCM)	Operator Flow (SCCM)	Percent Difference
Micromax 11199	6718	7000	+4.2
Micromax 07792	6765	7000	+3.6
Micromax 03311	6820	7000	+2.6
Micromax 03316	6906	7000	+1.4
Micromax 03314	6830	7000	+2.5
Micromax 03312	6980	7000	+0.3
Sierra 821-2 S/N: 3327	154	151	-1.9
Sierra 821-2 S/N: 3327	206	200	-2.9

TABLE 4.3-1 (Sheet 1 of 2)
METEOROLOGICAL SYSTEM AUDIT RESULTS SUMMARY

WIND SPEED (MPH)

Input	119.8 RPM 6.2 MPH(1)		301.0 RPM 14.9 MPH(1)		601.9 RPM 29.4 MPH(1)		
Site	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Starting Torque g.cm(2)
MET 1	6.3	+0.1	14.9	0.0	29.3	-0.1	<0.2
MET 3	6.2	0.0	14.8	0.1	29.1	-0.3	<0.2

WIND DIRECTION (°)

	Linearity Check									
	North		East		South		West			
Site	Response	Difference	Response	Difference	Response	Difference	Response	Difference	Oriented to True North	Starting Torque g.cm
MET 1	0	0	89	-1	180	0	271	+1	Yes	4.0
MET 3	0	0	91	+1	181	+1	272	+2	Yes	4.5

TEMPERATURE (°C)

	Low Point			Mid Point			High Point		
Site	Audit	Response	Difference	Audit	Response	Difference	Audit	Response	Difference
MET 1(2M)	0.5	0.5	0.0	20.7	20.9	+0.2	30.9	31.0	+0.1
MET 3	0.1	-0.1	-0.2	20.6	20.7	+0.1	31.0	31.0	0.0
MET 1(10M)	0.2	1.3	+1.1	21.1	20.7	+0.4	30.8	30.8	0.0
MET 1(10M)	0.2	0.2	0.0	20.7	20.9	+0.2	30.8	30.8	0.0

RELATIVE HUMIDITY

	Audit		Response		
Site	RH	Dew Point	RH	Dew Point	Dew Point Difference
1	53.9	-8.1°C	49.5	-9.2	-1.1°C

0040

TABLE 4.3-1 (Sheet 2 of 2)
METEOROLOGICAL SYSTEM RESULTS AUDIT SUMMARY

SOLAR RADIATION (LANGLY)

	Sensor Covery	System
MET 3	0-	0.00

RAIN FALL ("H2O)

Site	Audit Value Volume (cc)	Audit Value Rain Equivalent	System Response Rain Equivalent	% Difference
MET 1	100	.13	.12	<7.7% (3)
MET 3	100	.13	.13	0.0%

(1) MPH = [(RPM/3RPM/HZ)/ 6.95] + 0.5.

(2) Acceptable W/S starting Torque <0.2g.cm.

(3) Water was left in bucket after final tip. Indicating a response between 0.12 and 0.13

Summary Tables from
Second Quarter 1990 Audit Report

TABLE 4.1-1 (Sheet 1 of 2)
HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

TSP SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow(SCFM)	Percent Difference
1A	39.9	40.3	+1.0
2A	41.7	40.2	-3.6
3A	40.9	40.2	-1.8
4A	39.7	40.1	+0.9
5A	39.2	40.3	+2.9
5B	40.4	40.4	0.0
6A	40.6	40.0	-1.4
7A	39.7	40.1	+0.9
8A	40.2	40.1	-0.2
9A	40.1	40.2	+0.3
10A	40.7	40.1	-1.5
11A	39.6	39.6	0.0
12A	39.9	40.0	+0.4
M1A	39.7	40.0	+0.8
M2A	38.7	40.0	+3.2
M3A	39.8	40.1	+0.6
M4A	39.1	39.9	+2.1

TABLE 4.1-1 (Sheet 2 of 2)
HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

PM_{10} SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow (SCFM)	Percent Difference
1B	34.6	34.6	+0.0
2B	35.4	35.0	-1.2
3B	35.1	35.1	0.0
5C	35.4	35.2	-0.5
5D	35.6	35.0	-1.6
9B	34.9	35.2	+1.0
M1B	34.5	34.8	+0.7

PUF SAMPLERS

Site	Audit Flow (SLM)	Operator Determined Flow (SLM)	Percent Difference
1C	200.8	207.6	+3.4
2C	201.0	212.6	+6.0
3C	185.8	193.1	+3.9
[illegible]	203.0	207.5	+2.2
5F	187.5	179.5	-4.3
5G	184.8	198.0	+7.1
M1C	194.0	199.7	+3.1
M2C	206.0	207.4	+0.5
M3C	200.0	202.2	+0.8
M4C	203.0	207.3	+1.9

TABLE 4.2-1
SAMPLE PUMPS
ASBESTOS - VOC - MERCURY
AUDIT SUMMARY

Instrument/ID	Audit Flow (SCCM)	Operator Flow (SCCM)	Percent Difference
Micromax 11199	6753	7000	+3.6
Micromax 07792	6723	7000	+4.1
Micromax 03311	6860	7000	+3.6
Micromax 03316	7254	7000	-3.5
Micromax 03314	6862	7000	+2.0
Micromax 03312	6866	7000	+2.0
Sierra 821-2 S/N: 3327	293	300	+2.4

TABLE 4.3-1 (Sheet 1 of 2)
METEOROLOGICAL SYSTEM AUDIT RESULTS SUMMARY

WIND SPEED (MPH)

Input	119.8 RPM 6.2 MPH(1)		301.0 RPM 14.9 MPH(1)		601.9 RPM 29.4 MPH(1)		
Site	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Starting Torque g.cm(2)
MET 2	6.2	0.0	14.7	-0.2	29.2	-0.2	<0.2
MET 4	5.8	0.4	14.6	-0.3	29.2	-0.2	<0.2

WIND DIRECTION (°)

	Linearity Check									
	North		East		South		West			
Site	Response	Difference	Response	Difference	Response	Difference	Response	Difference	Oriented to True North	Starting Torque g.cm
MET 2	1	+1	92	+2	183	+3	273	+3	Yes	6.0
MET 4	365	+5	93	+3	181	+1	268	-2	Yes	5.0

TEMPERATURE (°C)

	Low Point			Mid Point			High Point		
Site	Audit	Response	Difference	Audit	Response	Difference	Audit	Response	Difference
MET 2	0.1	(31.9°F)/-0.1	-0.2	19.7	(67.4°F)/19.7	0.0	35.8	(96.4°F)/35.8	0.0
MET 4	0.2	(32.1°F)/-0.1	-0.1	20.4	(68.4°F)/20.2	-0.2	35.7	(96.1°F)/35.6	0.1

BAROMETRIC PRESSURE ("Hg)

Site	Audit	System	Difference
MET 4	24.43	24.4[illegible]	-0.02

TABLE 4.3-1 (Sheet 2 of 2)
METEOROLOGICAL SYSTEM RESULTS AUDIT SUMMARY

SOLAR RADIATION (LANGLY)

	Sensor Covered	System
MET 4	-	-0.01

RAIN FALL ("H2O)

	Audit Value		System Response	
Site	Volume (cc)	Rain Equivalent	Rain Equivalent	% Difference
MET 2	100	.13	.12	7.7
MET 4	100	.22	.23	4.5

(1) MPH = [(RPM/3RPM)/ 6.95] + 0.5.

(2) Acceptable W/S starting Torque <0.2g.cm.

Summary Tables from
Third Quarter 1990 Audit Report

TABLE 4.1-1 (Sheet of 2)

HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

TSP SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow (SCFM)	Percent Difference
1A	40.7	40.1	-1.5
2A	40.5	40.0	-1.2
3A	42.4	40.1	-5.3
4A	39.7	39.9	+0.6
5A	40.7	40.1	+1.5
5B	36.5	40.1	+9.8
6A	39.6	40.1	+1.2
7A	42.9	39.9	-7.1
8A	42.2	39.5	-6.5
9A	39.5	40.2	+1.8
10A	41.1	40.2	-2.3
11A	39.9	40.0	+0.3
12A	39.8	40.1	+0.7
M1A	37.8	38.0	+0.5
M2A	40.7	40.1	-1.4
M3A	39.8	40.1	+0.8
M4A	40.7	40.2	-1.2

TABLE 4.1-1 (Sheet 2 of 2)
HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

PM_{10} SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow (SCFM)	Percent Difference
1B	33.3	33.5	+0.7
2B	33.4	33.3	-0.3
3B	32.9	33.3	+2.8
5C	34.0	33.7	-0.9
5D	33.8	33.7	-0.4
9B	33.4	33.6	+0.6
M1B	34.1	33.5	-1.8

PUF SAMPLERS

Site	Audit Flow (SLM)	Operator Determined Flow (SLM)	Percent Difference
1C	180	182	+1.3
2C	199	199	+0.0
3C	183	186	+1.4
5E	189	191	+1.1
5F	176	180	+2.3
5G	189	192	+1.7
M1C	184	186	+0.9
M2C	197	190	-0.4
M3C	190	197	+3.4
M4C	190	196	+3.0

TABLE 4.2-1
SAMPLE PUMPS
ASBESTOS - VOC - MERCURY
AUDIT SUMMARY

Instrument/ID	Audit Flow (SCCM)	Operator Flow (SCCM)	Percent Difference
Micromax 11199	6827	7000	+2.5
Micromax 07792	6772	7000	+3.4
Micromax 03311	7110	7000	-1.5
Micromax 03316	7512	7000	-6.8
Micromax 03314	6908	7000	+1.3
Micromax 03312	6918	7000	+1.2
Sierra 821-2 S/N: 3327	289	300	+3.8

TABLE 4.3-1 (Sheet 1 of 2)
METEOROLOGICAL SYSTEM AUDIT RESULTS SUMMARY

WIND SPEED (MPH)

Input	119.93 RPM 6.2 MPH(1)		300.12 RPM 14.9 MPH(1)		500.20 RPM 29.3 MPH(1)		
Site	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Starting Torque g.cm(2)
MET 1	6.1	-0.1	14.8	-0.1	29.1	+0.2	<0.2
MET 3	6.2	0.0	14.5	-0.4	29.1	+0.2	<0.2

WIND DIRECTION (°)

Linearity Check

	North		East		South		West			
Site	Response	Difference	Response	Difference	Response	Difference	Response	Difference	Oriented to True North	Starting Torque g.cm
MET 1	0	0	91	+1	182	+2	273	+3	Yes	5.0
MET 3	2	+2	93	+3	181	+1	274	+4	Yes	6.0

TEMPERATURE °C (°F)

	Low Point			Mid Point			High Point		
Site	Audit	Response	Difference	Audit	Response	Difference	Audit	Response	Difference
MET 1 (2M)	0.1 (32.2)	0.3 (32.6)	2	29.9 (85.8)	30.3 (86.6)	+0.4	40.6 (105.1)	41.4 (106.5)	+0.8
MET 3 (10M)	0.5 (32.9)	0.6 (33.1)	+0.1	23.7 (74.7)	23.8 (74.8)	+0.1	30.7 (87.3)	31.0 (87.8)	+0.3
MET 1 (10M)	No data	No data	No data	28.8 (83.8)	28.9 (84.0)	+0.1	No data	No data	No data
MET 1 (10M)	0.2 (32.7)	0.3 (32.5)	+0.1	30.6 (87.1)	30.9 (87.6)	+0.3	40.7 (105.7)	41.0 (105.8)	+0.3

RELATIVE HUMIDITY

	Audit		Response		
Site	RH	Dew Point	RH	Dew Point	Dew Point Difference
MET 1	53.9	-8.1°C	49.5	-9.2	-1.1°C

0040-4

TABLE 4.3-1 (Sheet 2 of 2)

METEOROLOGICAL SYSTEM RESULTS AUDIT SUMMARY

SOLAR RADIATION (LANGELY PER HOUR)

	Sensor Covered	System
MET 3	-	0.00

RAIN FALL ("H20)

Site	Audit Value Volume (cc)	Audit Value Rain Equivalent	System Response Rain Equivalent	% Difference
MET 1	100	.13	.12	.01 (3)
MET 3	100	.13	.14	.01

(1) MPH = [(RPM/3RPM)/ 6.95] + 0.5.

(2) Acceptable W/S starting Torque <0.2g.cm.

(3) Water was left in bucket after final tip indicating a response between 0.12 and 0.13.

Summary Tables from
Fourth Quarter 1990 Audit Report

TABLE 4.1-1 (Sheet 1 of 2)

HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

TSP SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow (SCFM)	Percent Difference
1A	41.1	39.3	-4.4
2A	40.8	39.9	-2.1
3A	44.0	42.5	-3.5
4A	43.4	40.3	-7.2
5A	41.3	40.6	-1.6
5B	40.2	40.7	+1.3
6A	41.2	40.8	-0.9
7A	43.4	41.5	-4.5
8A	43.0	41.5	-3.4
9A	41.8	40.0	-4.3
10A	40.1	38.5	-3.9
11A	41.3	40.0	-3.2
12A	41.3	40.7	-1.5
M1A	38.1	38.4	+0.8
M2A	40.3	40.3	0.0
M3A	39.3	39.9	+1.5
M4A	39.0	39.7	+1.7

TABLE 4.1-1 (Sheet 2 of 2)
HIGH VOLUME SAMPLERS
TSP - PM_{10} - PUF
AUDIT SUMMARY

PM_{10} SAMPLERS

Site	Audit Flow (SCFM)	Operator Determined Flow (SCFM)	Percent Difference
1B	33.4	33.3	-0.2
2B	34.1	32.8	-3.9
3B	34.3	33.6	-2.1
5C	34.4	34.6	+0.6
5D	34.8	34.5	-0.7
9B	34.4	34.3	-0.2
10B	32.9	32.3	-1.8

PUF SAMPLERS

Site	Audit Flow (SLM)	Operator Determined Flow (SLM)	Percent Difference
1C	198	196	-1.0
2C	184	183	-0.6
3C	194	199	+2.7
5E	201	198	-1.5
5F	191	188	-1.5
5G	180	178	-1.3
M1C	181	215	+18.8
M2C	187	183	-2.0
M3C	184	190	+3.2
M4C	187	187	0.0

TABLE 4.2-1
SAMPLE PUMPS
ASBESTOS - VOC - MERCURY
AUDIT SUMMARY

Instrument/ID	Audit Flow (SCCM)	Operator Flow (SCCM)	Percent Difference
Micromax 11199	6295	6800	+8.0
Micromax 07792	6098	6500	+6.6
Micromax 03311	6024	6400	+6.2
Micromax 03316	6117	6600	+7.9
Micromax 03314	6367	6700	+5.2
Micromax 03312	6175	6800	+10.2
Sierra 821-2 S/N: 3327	299	302	+1.0

TABLE 4.3-1 (Sheet 1 of 2)
METEOROLOGICAL SYSTEM AUDIT RESULTS SUMMARY

WIND SPEED (MPH)

Input	119.9 RPM 6.3 MPH[1]		300.1 RPM 14.9 MPH[1]		600.2 RPM 29.3 MPH[1]		Starting Torque g.cm[2]
Site	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	Response (MPH)	Difference (MPH)	
MET 1	6.1	-0.2	14.8	-0.1	29.1	-0.2	<0.2
MET 2	6.1	-0.2	14.7	-0.2	29.2	-0.1	<0.2
MET 3	6.2	-0.1	14.8	-0.1	29.1	-0.2	<0.2
MET 4	5.8	-0.5	14.6	-0.3	29.2	-0.1	<0.2

WIND DIRECTION (°)

	Linearity Check									
	North		East		South		West			
Site	Response	Difference	Response	Difference	Response	Difference	Response	Difference	Oriented to True North	Starting Torque g.cm
MET 1	1	+1	93	+3	182	+2	273	+3	[illegible]	5.0
MET 2	0	0	91	+1	182	+2	272	+2	Yes	6.0
MET 3	0	0	92	+2	182	+2	273	+3	Yes	5.0
MET 4	367	+7	95	+5	183	+3	270	0	Yes	3.5

TEMPERATURE °C (°F)

	Low Point			Mid Point			High Point		
Site	Audit	Response	Difference	Audit	Response	Difference	Audit	Response	Difference
MET 1 (2M)	0.00 (32.0)	0.11 (32.2)	+0.11 (+0.2)	20.00 (68.0)	20.22 (68.4)	+0.22 (+0.4)	30.9 (87.6)	31.16 (88.1)	+0.26 (+0.5)
MET 1 (10M	N/A	–	–	4.9 (40.8)	4.8 (40.7)	-0.1 (-0.1)	N/A	–	–
MET 1 (10M)	0.10 (32.2)	0.06 (32.1)	-0.04 (-0.1)	20.30 (68.5)	20.38 (68.7)	+0.08 (+0.2)	30.90 (87.6)	30.94 (87.7)	+0.04 (+0.1)
MET 2	0.10 (32.2)	0.00 (32.0)	-0.10 (-0.2)	19.95 (67.9)	19.94 (67.9)	0.01 (0.0)	30.30 (86.5)	30.22 (86.4)	-0.08 (-0.1)
MET 3	0.05 (32.1)	0.00 (32.0)	-0.05 (-0.1)	20.35 (68.6)	20.44 (68.8)	+0.09 (+0.2)	30.40 (86.7)	30.72 (87.3)	+0.32 (+0.6)
MET 4	0.10 (32.2)	0.04 (32.1)	-0.06 (-0.1)	20.50 (68.9)	20.30 (68.5)	-0.20 (-0.4)	36.15 (97.1)	36.12 (97.0)	-0.03 (-0.1)

RELATIVE HUMIDITY

	Audit		Response		Dew Point Difference
Site	RH	Dew Point	RH	Dew Point	
MET 1	88.5	3.1°C (37.6°F)	97.1	4.4°C (40.0°F)	+1.3°C (+2.4°F)

TABLE 4.3-1 (Sheet 2 of 2)
METEOROLOGICAL SYSTEM AUDIT RESULTS SUMMARY

SOLAR RADIATION (LANGLEY PER HOUR)

Site	Sensor Covered	System
MET 2	–	-0.02
MET 3	–	0.00

RAIN FALL ("H_2O)

Site	Audit Value		System Response Rain Equivalent	Difference
	Volume (cc)	Rain Equivalent		
MET 1	100	.13	.12	.01
MET 2	100	.13	.12	.01
MET 3	100	.13	.13	.00
MET 4	100	.22	.23	.01

(1) MPH = [(RPM/3RPM)/6.95] + 0.5.

(2) Acceptable W/S starting Torque <0.2g.cm.

APPENDIX I

CONTINUOUS AIR QUALITY DATA

11 Carbon Monoxide (CO)

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
10	1	274	1.000	0.200	0.371	24
10	2	275	1.200	0.300	0.479	24
10	3	276	0.600	0.300	0.367	24
10	4	277	1.000	0.300	0.450	24
10	5	278	0.500	0.200	0.296	24
10	6	279	1.700	0.300	0.662	24
10	7	280	1.900	0.300	0.683	24
10	8	281	1.300	0.300	0.596	24
10	9	282	4.800	0.300	1.104	24
10	10	283	1.900	0.300	0.746	24
10	11	284	3.200	0.300	1.012	24
10	12	285	1.500	0.300	0.629	24
10	13	286	1.800	0.300	0.691	22
10	14	287	0.900	0.300	0.579	24
10	15	288	1.000	0.400	0.521	24
10	16	289	0.500	0.400	0.4[illegible]4	24
10	17	290	0.500	0.400	0.437	24
10	18	291	2.400	0.400	0.692	24
10	19	292	2.000	0.500	1.021	24
10	20	293	2.700	0.400	1.025	24
10	21	294	2.200	0.400	0.821	24
10	22	295	1.200	0.400	0.629	24
10	23	296	1.700	0.400	0.864	22
10	24	297	2.400	0.400	1.017	24
10	25	298	3.300	0.600	1.188	24
10	26	299	0.800	0.500	0.600	24
10	27	300	2.400	0.500	0.863	24
10	28	301	1.900	0.500	0.950	16
10	29	302	0.800	0.500	0.596	24
10	30	303	2.200	0.600	0.975	24
10	31	304	2.200	0.500	0.808	24
11	1	305	1.900	0.500	0.800	24
11	2	306	2.100	0.700	1.137	24
11	3	307	1.800	0.600	0.950	24
11	4	308	5.000	0.500	0.988	24
11	5	309	1.400	0.500	0.688	24
11	6	310	2.300	0.600	0.908	24
11	7	311	0.900	0.600	0.663	24
11	8	312	1.000	0.600	0.673	22
11	9	313	1.100	0.600	0.738	24
11	10	314	2.700	0.700	1.133	24
11	11	315	1.800	0.600	0.921	24
11	12	316	2.000	0.600	0.854	24
11	13	317	2.300	0.600	0.825	24
11	14	318	1.900	0.600	0.892	24
11	15	319	0.900	0.600	0.688	24
11	16	320	1.800	0.600	1.017	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
11	17	321	2.200	0.700	1.063	24
11	18	322	2.300	0.700	1.063	24
11	19	323	2.600	0.700	1.092	24
11	20	324	3.200	0.700	1.322	23
11	21	325	4.000	0.700	1.433	24
11	22	326	2.900	0.700	0.833	24
11	23	327	2.900	0.900	1.583	24
11	24	328	1.400	0.800	0.925	24
11	25	329	1.300	0.700	0.833	24
11	26	330	2.100	0.800	1.112	24
11	27	331	1.500	0.700	0.833	24
11	28	332	2.800	0.800	1.438	24
11	29	333	2.700	0.800	1.225	24
11	30	334	5.100	0.900	1.767	24
12	1	335	5.100	0.800	1.546	24
12	2	336	2.700	0.800	1.292	24
12	3	337	2.700	1.000	1.488	24
12	4	338	2.700	0.800	1.118	22
12	5	339	2.100	0.700	0.933	24
12	6	340	1.800	0.700	0.954	24
12	7	341	2.800	0.800	1.054	24
12	8	342	4.200	0.800	1.850	24
12	9	343	1.500	0.700	0.970	23
12	10	344	0.900	0.800	0.804	24
12	11	345	2.800	0.800	1.279	24
12	12	346	2.600	0.900	1.208	24
12	13	347	1.500	0.900	1.083	24
12	14	348	3.100	0.800	1.150	24
12	15	349	2.400	0.800	1.100	24
12	16	350	2.900	0.800	1.348	21
12	17	351	1.900	1.000	1.442	24
12	18	352	3.200	0.800	1.121	24
12	19	353	4.200	1.700	2.829	24
12	20	354	3.500	0.800	1.192	24
12	21	355	0.900	0.800	0.846	24
12	22	356	5.900	0.900	2.417	23
12	23	357	8.500	0.800	2.800	24
12	24	358	1.800	0.800	1.171	24
12	25	359	2.400	0.900	1.333	24
12	26	360	2.000	1.000	1.275	24
12	27	361	4.100	0.900	1.588	24
12	28	362	3.400	0.800	1.392	24
12	29	363	3.400	0.800	1.150	24
12	30	364	2.400	0.800	1.221	24
12	31	365	2.000	0.800	1.204	24
1	1	1	2.900	0.900	1.279	24
1	2	2	3.900	0.900	1.612	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
1	3	3	1.400	0.900	0.992	24
1	4	4	3.600	1.100	2.004	24
1	5	5	2.500	0.900	1.346	24
1	6	6	3.700	1.000	1.525	24
1	7	7	1.700	1.000	1.200	24
1	8	8	1.200	0.900	1.017	24
1	9	9	1.600	0.900	1.071	24
1	10	10	3.100	0.900	1.179	24
1	11	11	1.500	0.900	1.025	24
1	12	12	3.500	1.300	1.808	24
1	13	13	3.200	1.100	1.421	24
1	14	14	3.000	1.100	1.379	24
1	15	15	3.500	1.200	1.858	24
1	16	16	3.300	1.200	1.717	24
1	17	17	2.600	1.100	1.492	24
1	18	18	2.100	0.300	1.061	18
1	19	19	0.500	0.100	0.242	24
1	20	20	1.800	0.100	0.588	24
1	21	21	2.100	0.100	0.575	24
1	22	22	1.400	0.100	0.622	23
1	23	23	0.400	0.100	0.150	22
1	24	24	0.700	0.100	0.242	24
1	25	25	0.400	0.100	0.175	24
1	26	26	1.200	0.100	0.354	24
1	27	27	0.800	0.100	0.246	24
1	28	28	0.700	0.100	0.317	24
1	29	29	0.800	0.100	0.300	24
1	30	30	1.200	0.100	0.442	24
1	31	31	1.300	0.100	0.496	24
2	1	32	0.800	0.200	0.405	22
2	2	33	1.800	0.200	0.696	24
2	3	34				0
2	4	35				0
2	5	36				0
2	6	37				0
2	7	38				0
2	8	39				0
2	9	40	0.500	0.100	0.30[illegible]	9
2	10	41	0.400	0.100	0.14[illegible]	24
2	11	42	0.600	0.100	0.2[illegible]	24
2	12	43	2.600	0.100	0.442	24
2	13	44	0.200	0.100	0.142	24
2	14	45	0.300	0.200	0.245	22
2	15	46	1.800	0.200	0.646	24
2	16	47	2.900	0.200	1.113	24
2	17	48	1.000	0.300	0.413	24
2	18	49	0.600	0.200	0.321	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
2	19	50	0.900	0.300	0.479	24
2	20	51	1.400	0.400	0.467	24
2	21	52	2.300	0.100	0.800	24
2	22	53	1.200	0.200	0.600	24
2	23	54	1.600	0.200	0.513	24
2	24	55	2.500	0.400	0.796	24
2	25	56	2.700	0.200	0.763	24
2	26	57	2.000	0.300	0.775	24
2	27	58	0.600	0.300	0.338	24
2	28	59	0.400	0.300	0.338	24
3	1	60	1.500	0.300	0.718	22
3	2	61	2.100	0.300	0.826	23
3	3	62	1.000	0.300	0.537	24
3	4	63	0.900	0.300	0.421	24
3	5	64	0.900	0.300	0.496	23
3	6	65	0.500	0.400	0.458	24
3	7	66	0.900	0.500	0.537	24
3	8	67	2.100	0.500	1.092	24
3	9	68	5.000	0.400	1.558	24
3	10	69	4.000	0.300	1.267	24
3	11	70	1.800	0.400	0.825	24
3	12	71	1.100	0.300	0.471	24
3	13	72	0.500	0.400	0.413	24
3	14	73	1.700	0.400	0.867	24
3	15	74	1.100	0.400	0.517	23
3	16	75	1.000	0.300	0.463	24
3	17	76	1.000	0.400	0.550	24
3	18	77	0.400	0.400	0.400	24
3	19	78	1.700	0.400	0.800	24
3	20	79	1.300	0.400	0.717	24
3	21	80	1.200	0.500	0.713	24
3	22	81	0.900	0.600	0.629	24
3	23	82	0.800	0.600	0.642	24
3	24	83	0.700	0.600	0.667	24
3	25	84	1.000	0.600	0.713	24
3	26	85	0.800	0.400	0.587	15
3	27	86	1.800	0.100	0.754	24
3	28	87	0.200	0.100	0.104	24
3	29	88	0.400	0.100	0.209	22
3	30	89	1.300	0.100	0.267	24
3	31	90	2.400	0.100	0.679	24
4	1	91	1.000	0.100	0.312	24
4	2	92	1.400	0.100	0.429	24
4	3	93	1.400	0.100	0.386	22
4	4	94	0.500	0.200	0.342	24
4	5	95	0.200	0.100	0.137	24
4	6	96	0.800	0.100	0.333	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
4	7	97	1.500	0.200	0.542	24
4	8	98	0.700	0.200	0.363	24
4	9	99	1.200	0.200	0.396	24
4	10	100	0.400	0.200	0.229	24
4	11	101	0.600	0.200	0.343	23
4	12	102	2.600	0.200	0.638	24
4	13	103	0.800	0.200	0.267	24
4	14	104	1.000	0.100	0.413	24
4	15	105	0.900	0.100	0.362	24
4	16	106	0.900	0.200	0.333	24
4	17	107	0.700	0.200	0.412	24
4	18	108	1.100	0.200	0.500	24
4	19	109	1.500	0.200	0.567	24
4	20	110	1.300	0.200	0.513	24
4	21	111	0.900	0.200	0.479	24
4	22	112	0.600	0.200	0.342	24
4	23	113	0.800	0.300	0.438	24
4	24	114	1.500	0.300	0.679	24
4	25	115	1.300	0.300	0.586	22
4	26	116	1.100	0.300	0.488	24
4	27	117	0.900	0.100	0.277	22
4	28	118	0.300	0.100	0.125	24
4	29	119	0.100	0.100	0.100	24
4	30	120	0.500	0.100	0.179	24
5	1	121	0.300	0.100	0.175	24
5	2	122	1.800	0.100	0.454	24
5	3	123	0.500	0.100	0.150	24
5	4	124	1.100	0.100	0.304	24
5	5	125	1.000	0.100	0.233	24
5	6	126	0.400	0.100	0.192	24
5	7	127	0.900	0.100	0.187	24
5	8	128	0.300	0.100	0.133	24
5	9	129	0.100	0.100	0.100	23
5	10	130	0.900	0.100	0.304	23
5	11	131	0.300	0.100	0.121	24
5	12	132	0.600	0.100	0.208	24
5	13	133	0.900	0.100	0.275	24
5	14	134	0.800	0.100	0.188	24
5	15	135	0.900	0.100	0.208	24
5	16	136	0.300	0.100	0.129	24
5	17	137	0.400	0.100	0.162	24
5	18	138	1.000	0.100	0.288	24
5	19	139	0.400	0.100	0.167	24
5	20	140	0.200	0.100	0.117	24
5	21	141	1.300	0.100	0.267	24
5	22	142	0.900	0.100	0.279	24
5	23	143	0.800	0.100	0.300	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

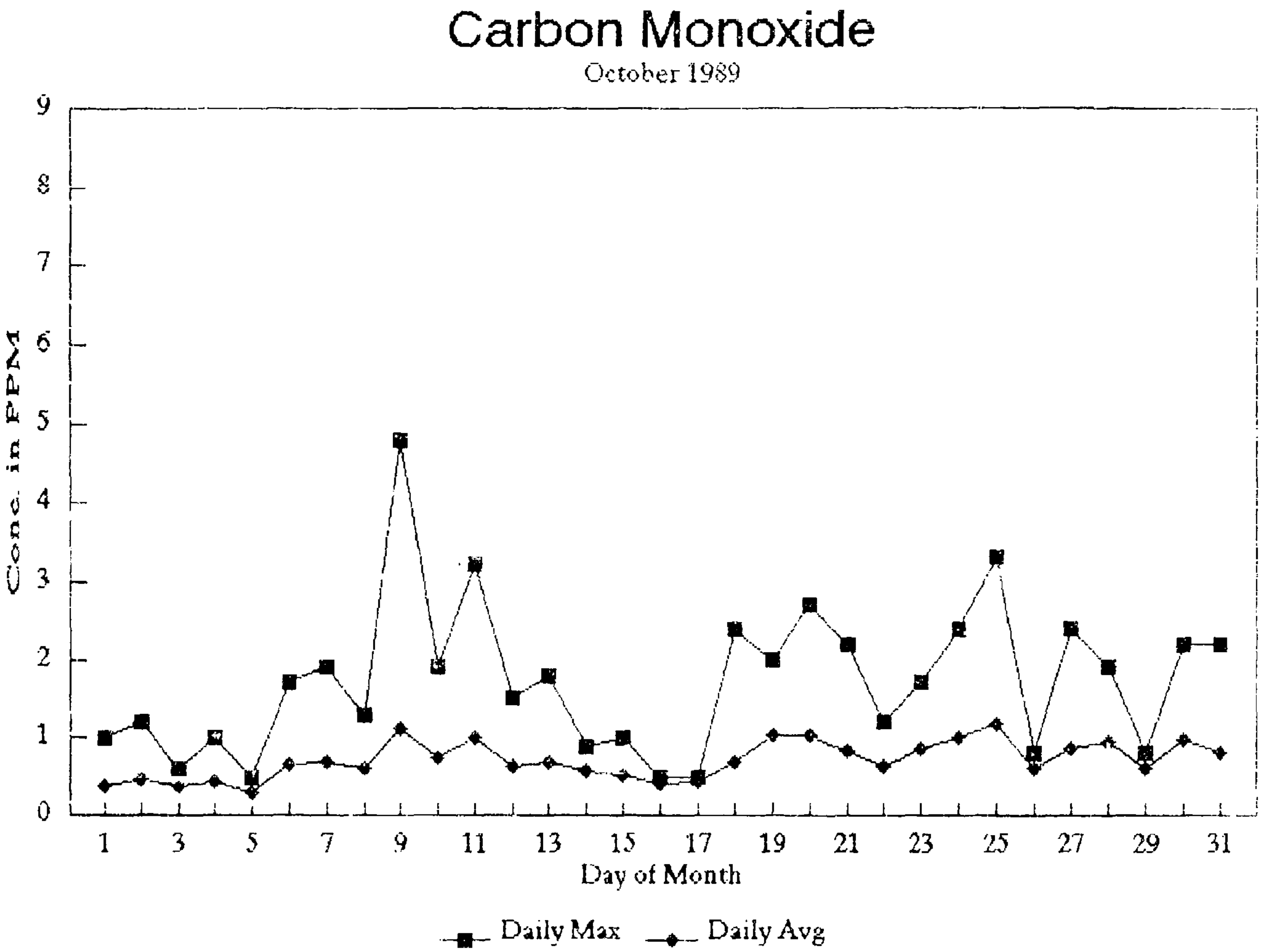
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
5	24	144	1.100	0.100	0.343	23
5	25	145	0.200	0.100	0.117	24
5	26	146	0.300	0.100	0.108	24
5	27	147	0.100	0.100	0.100	24
5	28	148	0.300	0.100	0.112	24
5	29	149	0.500	0.100	0.192	24
5	30	150	1.100	0.100	0.337	24
5	31	151	1.000	0.100	0.350	24
6	1	152	1.300	0.100	0.271	24
6	2	153	0.100	0.100	0.100	24
6	3	154	0.300	0.100	0.142	24
6	4	155	1.200	0.100	0.242	24
6	5	156	1.000	0.100	0.296	24
6	6	157	0.400	0.100	0.188	24
6	7	158	0.600	0.100	0.209	22
6	8	159	0.800	0.100	0.200	24
6	9	160	0.500	0.100	0.233	24
6	10	161	0.700	0.100	0.188	24
6	11	162	0.300	0.100	0.121	24
6	12	163	0.300	0.100	0.112	24
6	13	164	0.100	0.100	0.100	24
6	14	165	0.600	0.100	0.158	24
6	15	166	0.600	0.100	0.212	24
6	16	167	0.500	0.100	0.133	24
6	17	168	0.900	0.100	0.246	24
6	18	169	0.800	0.100	0.296	24
6	19	170	0.600	0.100	0.242	24
6	20	171	0.800	0.100	0.292	24
6	21	172	1.100	0.100	0.289	19
6	22	173	0.700	0.100	0.171	24
6	23	174	0.800	0.100	0.295	22
6	24	175	0.300	0.100	0.142	24
6	25	176	1.500	0.100	0.371	24
6	26	177	1.100	0.100	0.508	24
6	27	178	0.600	0.100	0.254	24
6	28	179	0.900	0.100	0.229	24
6	29	180	1.500	0.100	0.300	24
6	30	181	0.600	0.100	0.225	24
7	1	182	1.100	0.100	0.287	24
7	2	183	0.900	0.100	0.304	24
7	3	184	1.000	0.100	0.275	24
7	4	185	0.400	0.100	0.167	24
7	5	186	1.000	0.100	0.322	23
7	6	187	0.800	0.100	0.329	24
7	7	188	0.600	0.100	0.242	24
7	8	189	0.500	0.100	0.225	24
7	9	190	0.300	0.100	0.179	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
7	10	191	2.100	0.100	0.642	24
7	11	192	1.400	0.100	0.433	24
7	12	193	0.900	0.100	0.142	24
7	13	194	1.000	0.100	0.183	24
7	14	195	0.900	0.100	0.321	24
7	15	196	0.700	0.100	0.304	21
7	16	197	1.300	0.100	0.379	24
7	17	198	1.200	0.100	0.304	24
7	18	199	0.800	0.100	0.300	24
7	19	200	0.300	0.100	0.121	24
7	20	201	0.300	0.100	0.145	20
7	21	202	0.100	0.100	0.100	24
7	22	203	0.200	0.100	0.108	24
7	23	204	0.700	0.100	0.329	24
7	24	205	1.700	0.100	0.554	24
7	25	206	1.000	0.100	0.336	22
7	26	207	1.200	0.100	0.342	24
7	27	208	0.600	0.100	0.225	24
7	28	209	0.500	0.100	0.263	24
7	29	210	0.600	0.100	0.242	24
7	30	211	0.400	0.100	0.187	24
7	31	212	0.700	0.100	0.300	24
8	1	213	1.200	0.100	0.354	24
8	2	214	1.000	0.100	0.348	23
8	3	215	1.200	0.100	0.321	24
8	4	216	0.800	0.100	0.237	24
8	5	217	0.100	0.100	0.100	24
8	6	218	0.800	0.100	0.179	24
8	7	219	1.200	0.100	0.367	24
8	8	220	1.800	0.100	0.475	24
8	9	221	1.100	0.100	0.300	24
8	10	222	1.500	0.100	0.517	24
8	11	223	0.600	0.100	0.200	24
8	12	224	0.800	0.100	0.271	24
8	13	225	0.900	0.200	0.404	24
8	14	226	1.000	0.100	0.292	24
8	15	227	2.900	0.100	0.454	24
8	16	228	1.100	0.100	0.404	23
8	17	229	1.000	0.100	0.442	24
8	18	230	1.400	0.100	0.475	24
8	19	231	0.400	0.100	0.188	17
8	20	232	1.800	0.100	0.475	16
8	21	233	1.600	0.100	0.583	24
8	22	234	1.500	0.100	0.563	24
8	23	235	1.000	0.100	0.292	24
8	24	236	1.300	0.100	0.333	24
8	25	237	1.100	0.100	0.300	24

Carbon Monoxide (CO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
8	26	238	1.000	0.100	0.221	24
8	27	239	1.000	0.100	0.342	24
8	28	240	1.100	0.100	0.271	24
8	29	241	0.900	0.100	0.379	24
8	30	242	1.200	0.100	0.317	23
8	31	243	1.000	0.100	0.350	24
9	1	244	0.800	0.200	0.333	24
9	2	245	0.800	0.100	0.308	24
9	3	246	0.600	0.100	0.300	24
9	4	247	1.200	0.100	0.375	24
9	5	248	1.200	0.100	0.350	24
9	6	249	1.900	0.100	0.454	24
9	7	250	1.800	0.100	0.475	24
9	8	251	1.100	0.100	0.346	24
9	9	252	0.700	0.100	0.288	24
9	10	253	1.000	0.100	0.300	24
9	11	254	1.000	0.100	0.300	24
9	12	255	2.000	0.100	0.338	21
9	13	256	1.100	0.100	0.248	23
9	14	257	1.100	0.100	0.400	24
9	15	258	0.800	0.200	0.430	23
9	16	259	0.500	0.100	0.221	24
9	17	260	1.700	0.100	0.446	24
9	18	261	1.200	0.100	0.433	24
9	19	262	2.400	0.100	0.529	24
9	20	263	1.100	0.100	0.412	24
9	21	264	2.000	0.100	0.450	24
9	22	265	2.400	0.100	0.483	24
9	23	266	2.500	0.200	0.513	24
9	24	267	1.600	0.100	0.583	24
9	25	268	1.100	0.200	0.433	24
9	26	269	1.200	0.200	0.471	24
9	27	270	1.300	0.200	0.573	22
9	28	271	0.600	0.300	0.367	24
9	29	272	0.300	0.200	0.221	24
9	30	273	1.900	0.100	0.642	24


Carbon Monoxide
October 1989
Conc. in PPM
0
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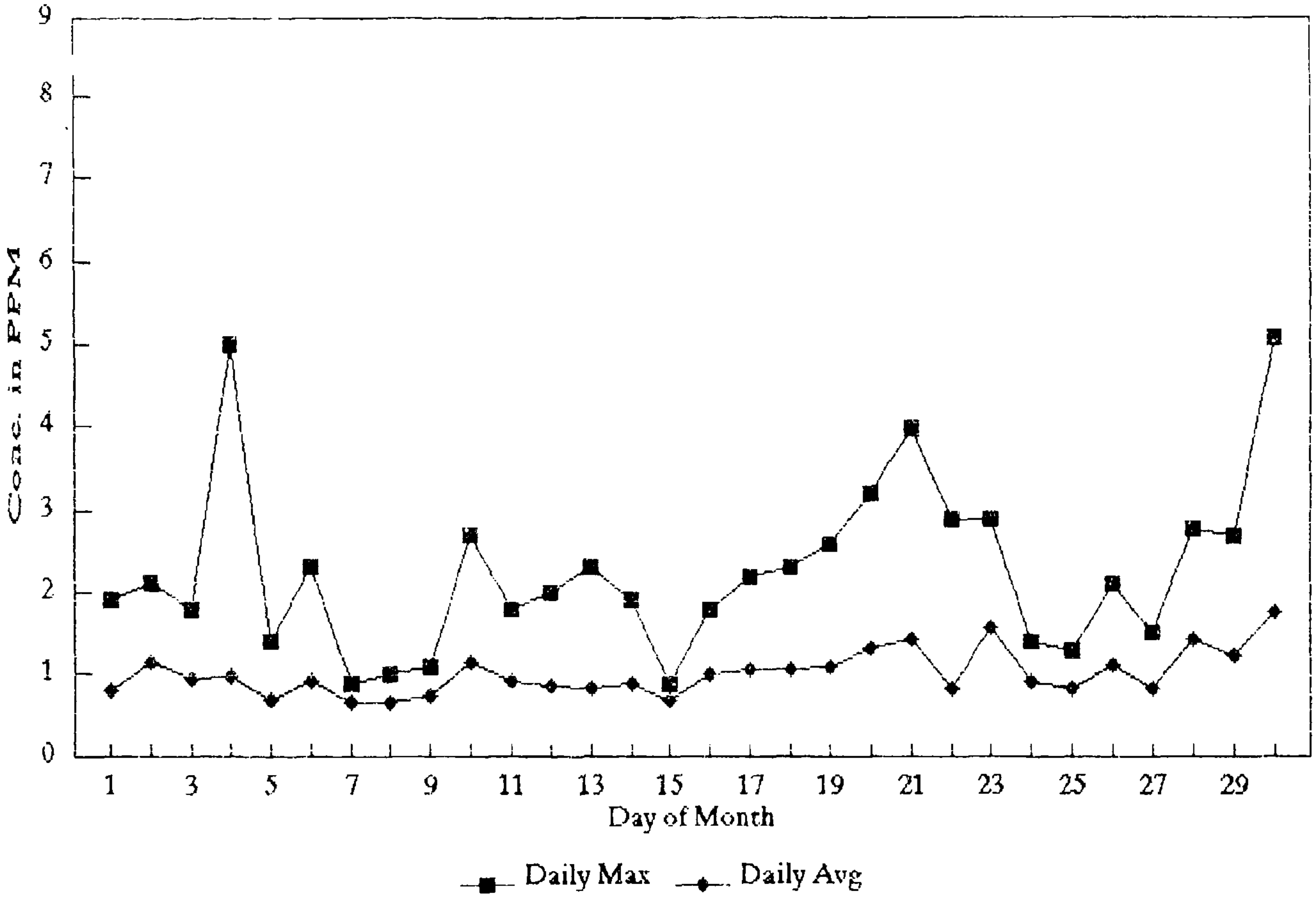
25
27
29
31
Day of Month
Daily Max
Daily Avg

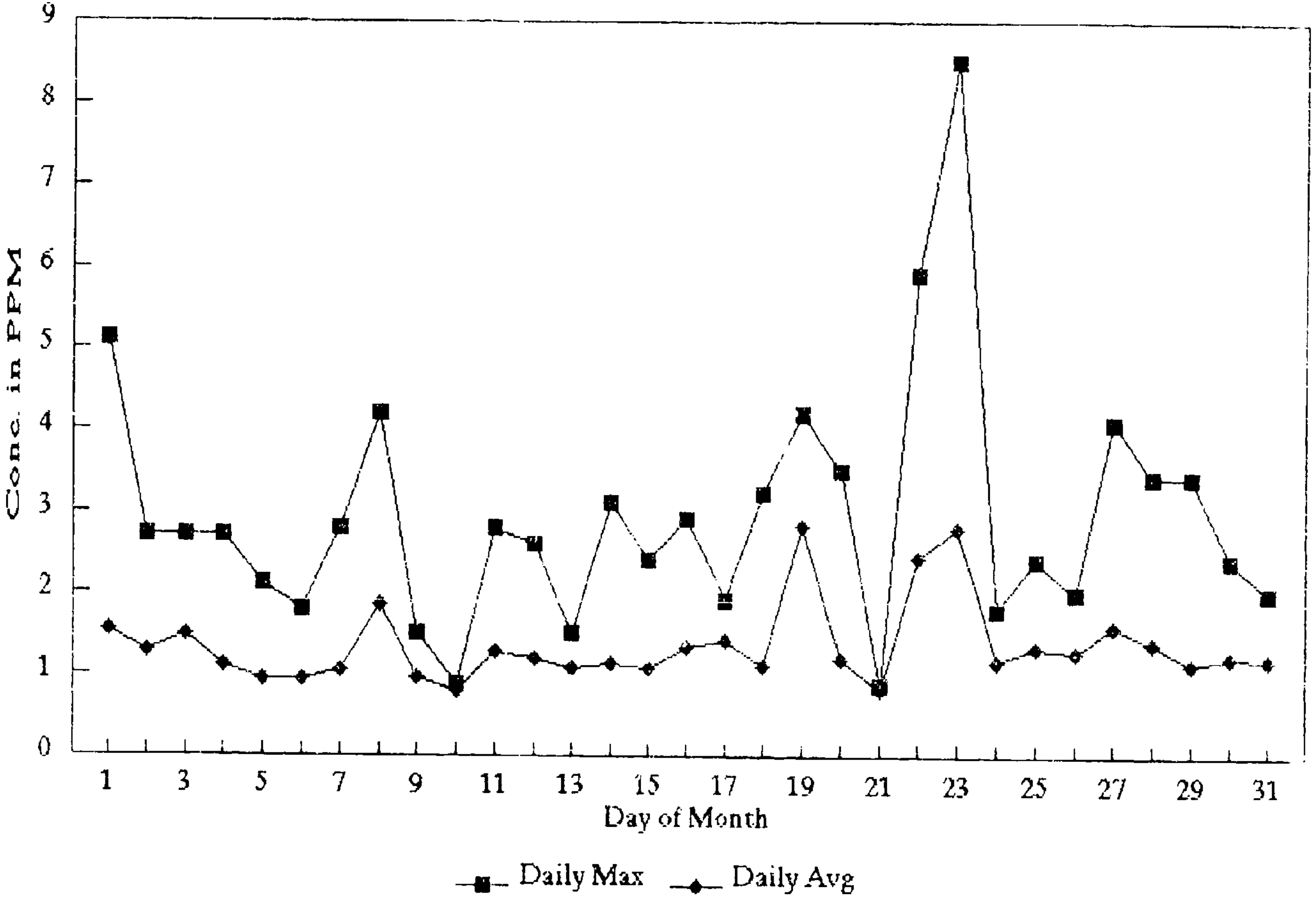
Carbon Monoxide

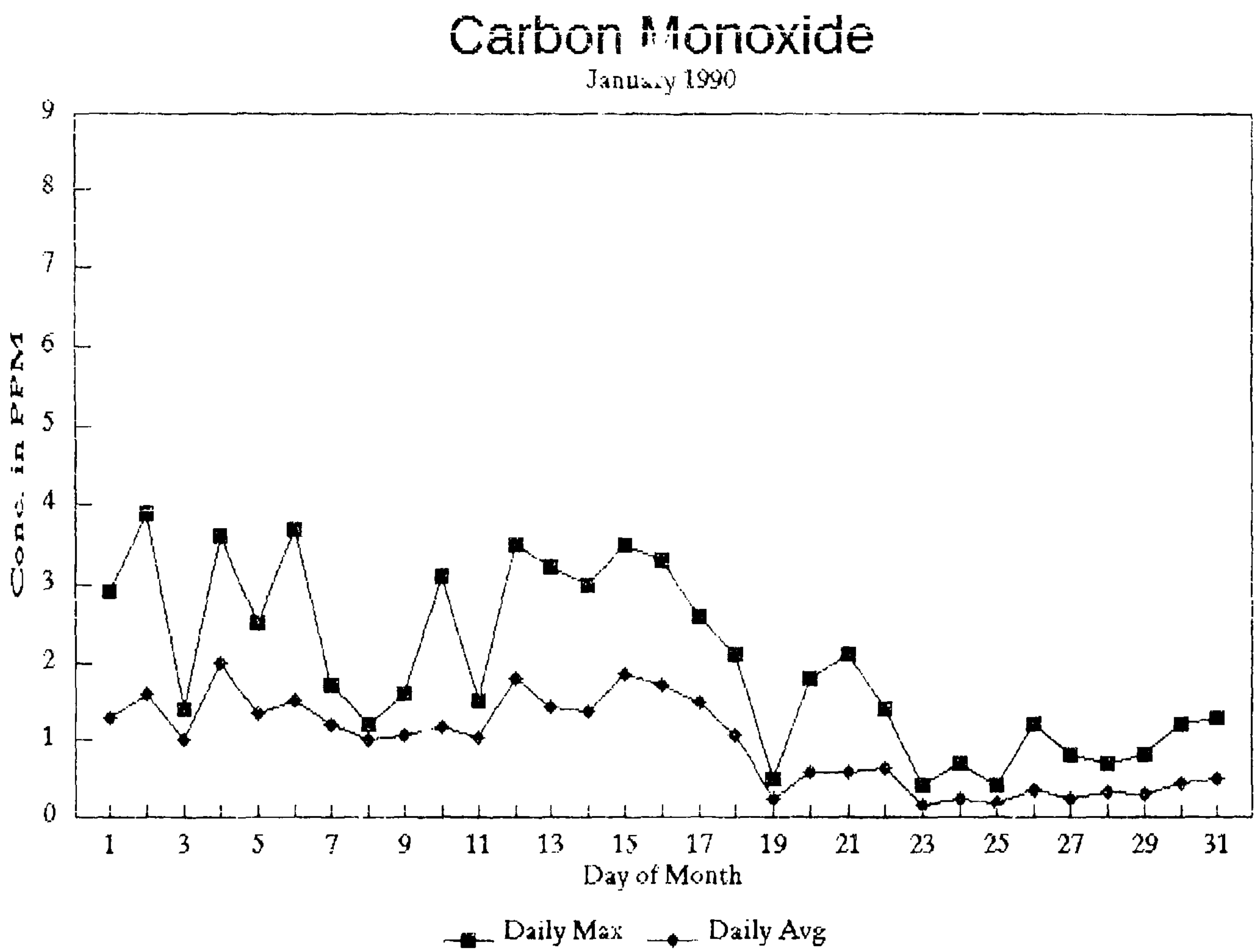
November 1989



Carbon Monoxide

December 1989





Carbon Monoxide
January 1990
Conc. in PPM
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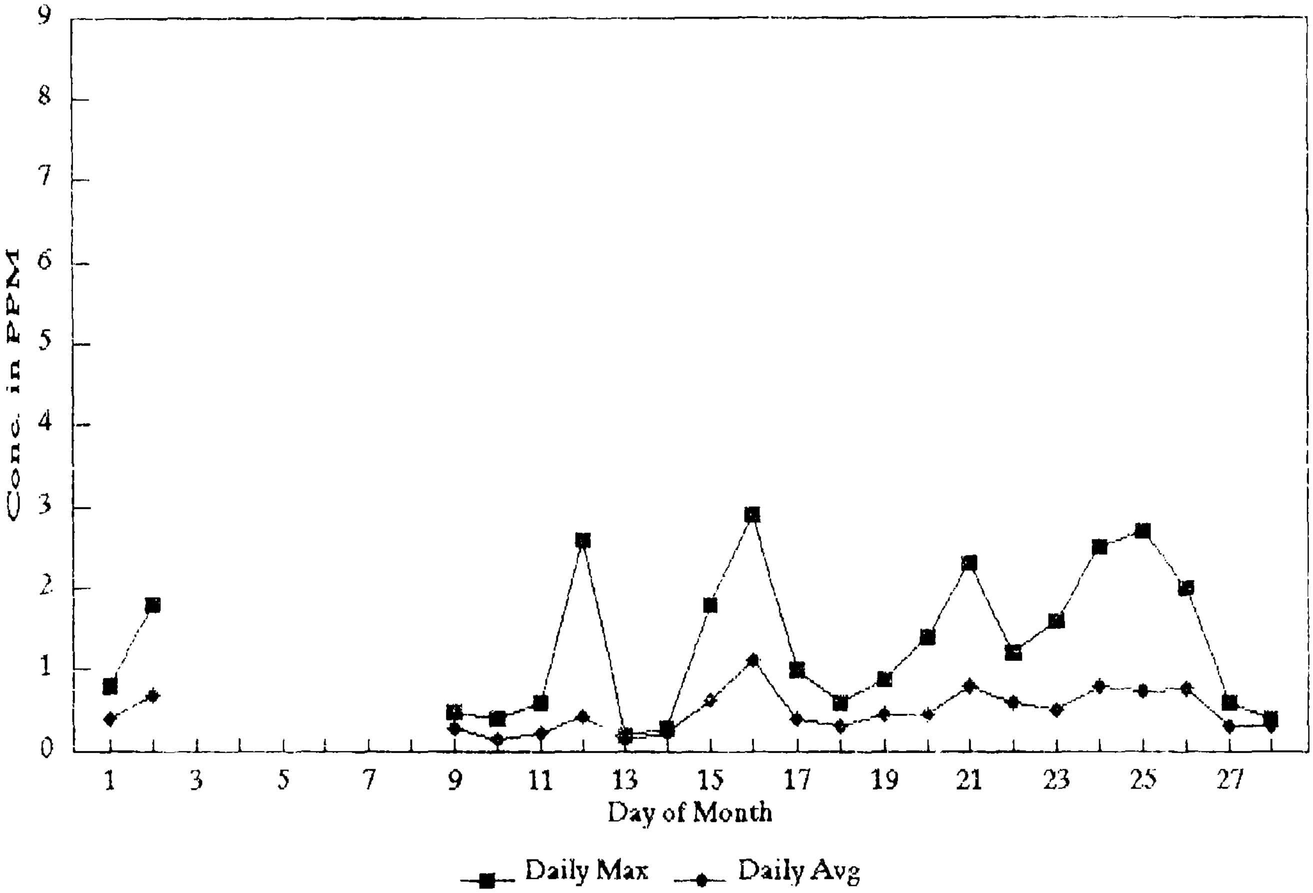
Day of Month
Daily Max
Daily Avg

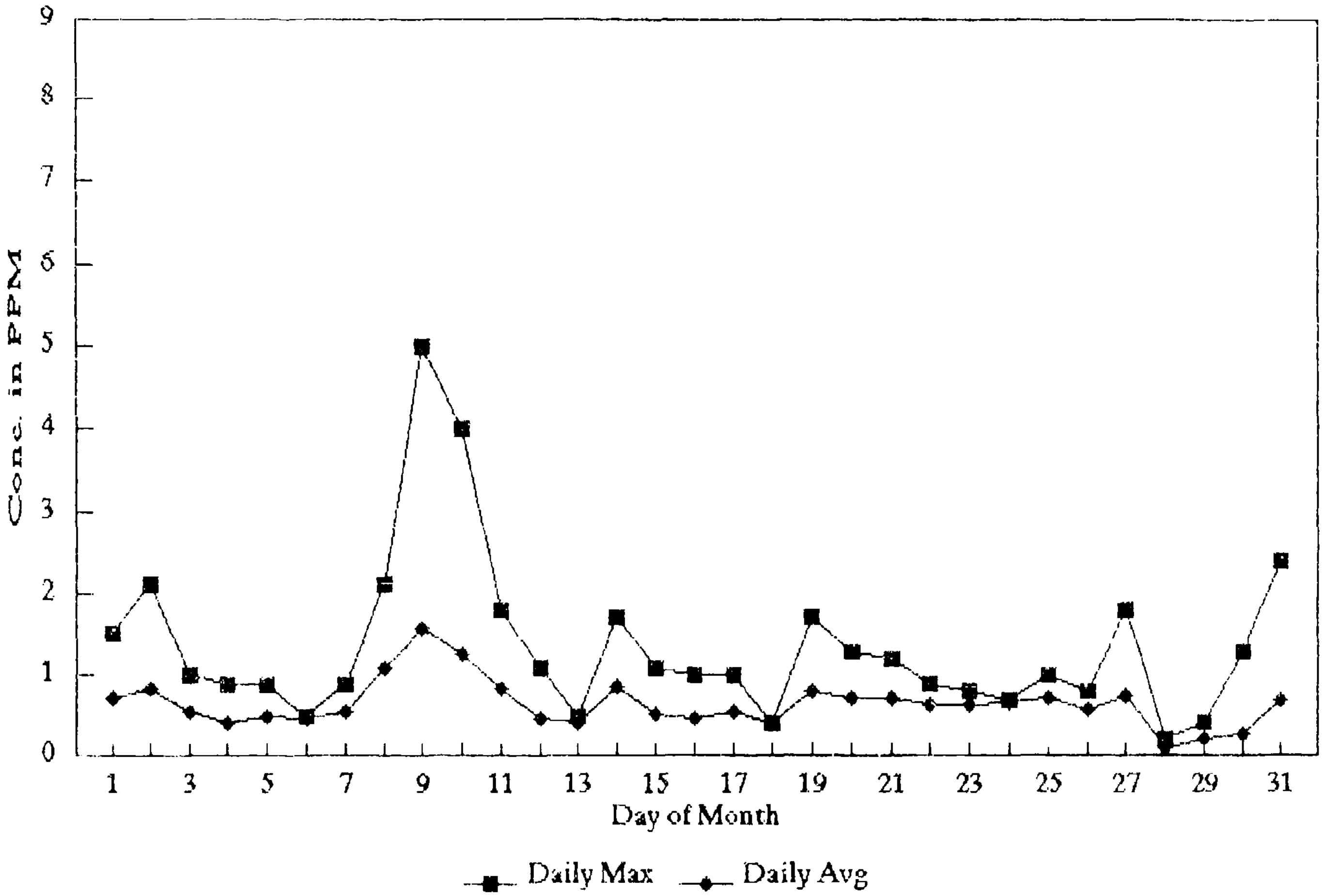
Carbon Monoxide

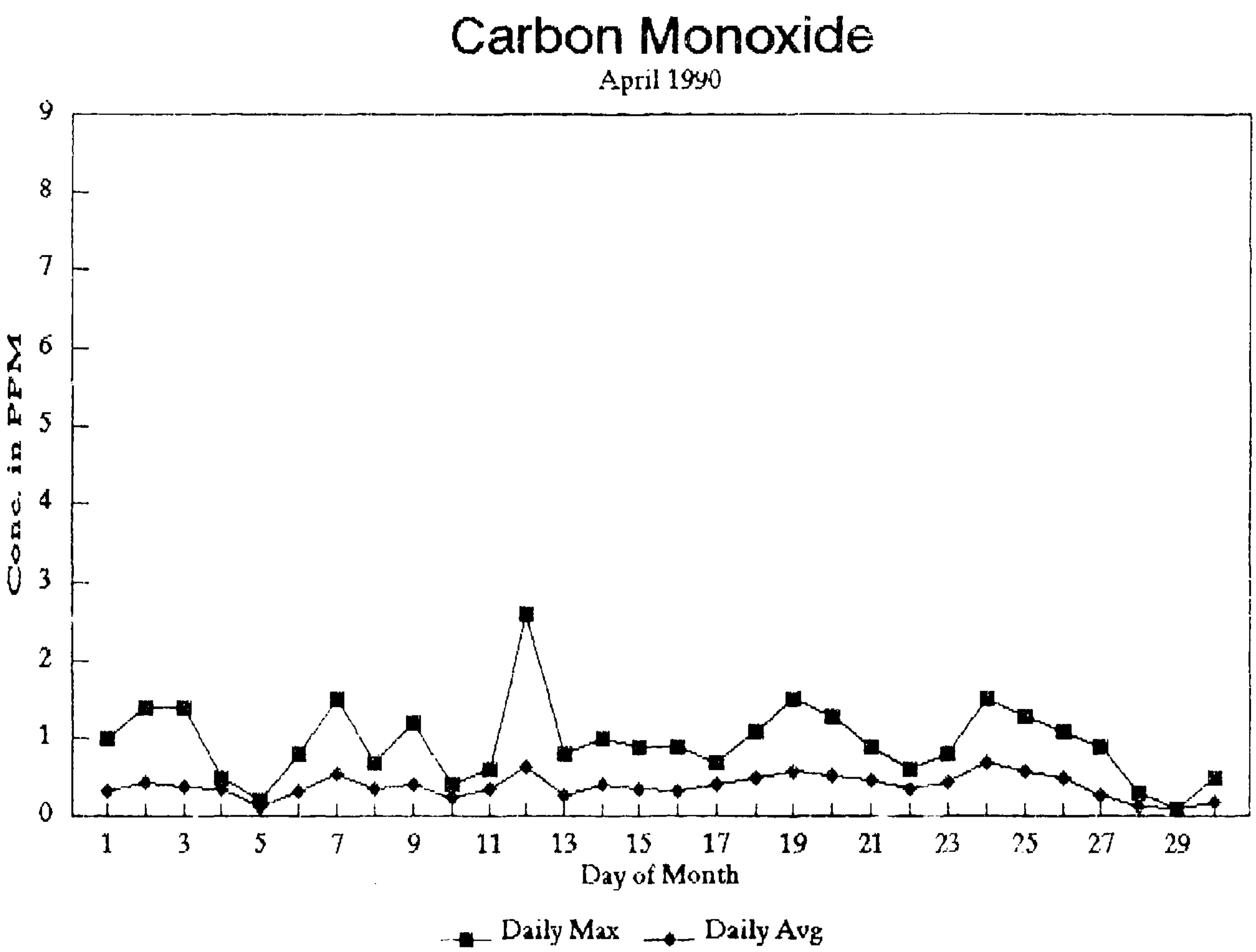
February 1990



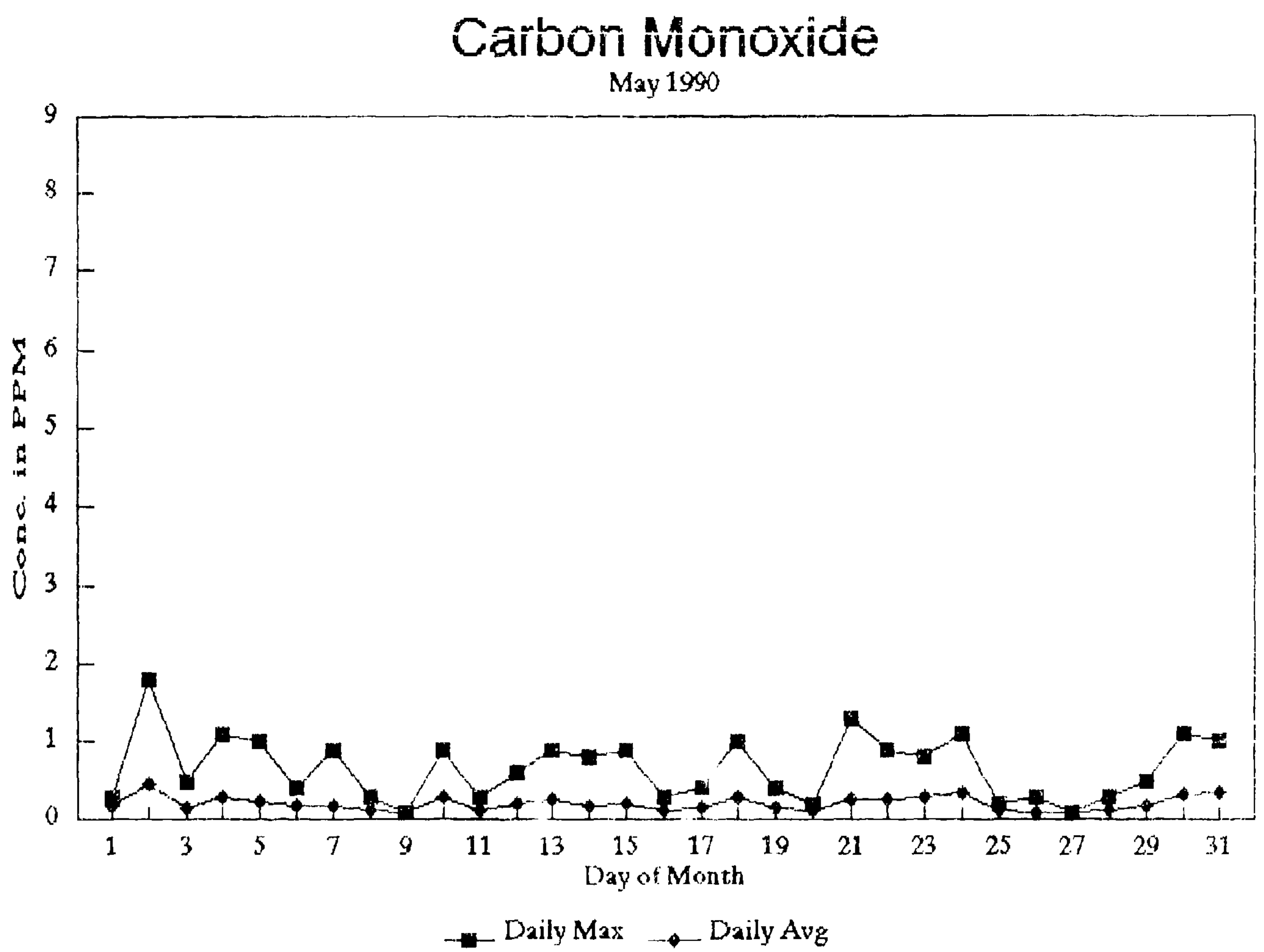
Carbon Monoxide

March 1990





Carbon Monoxide
April 1990
Conc. in PPM
Day of Month
Daily Max
Daily Avg



Carbon Monoxide
May 1990
Conc. in PPM
0
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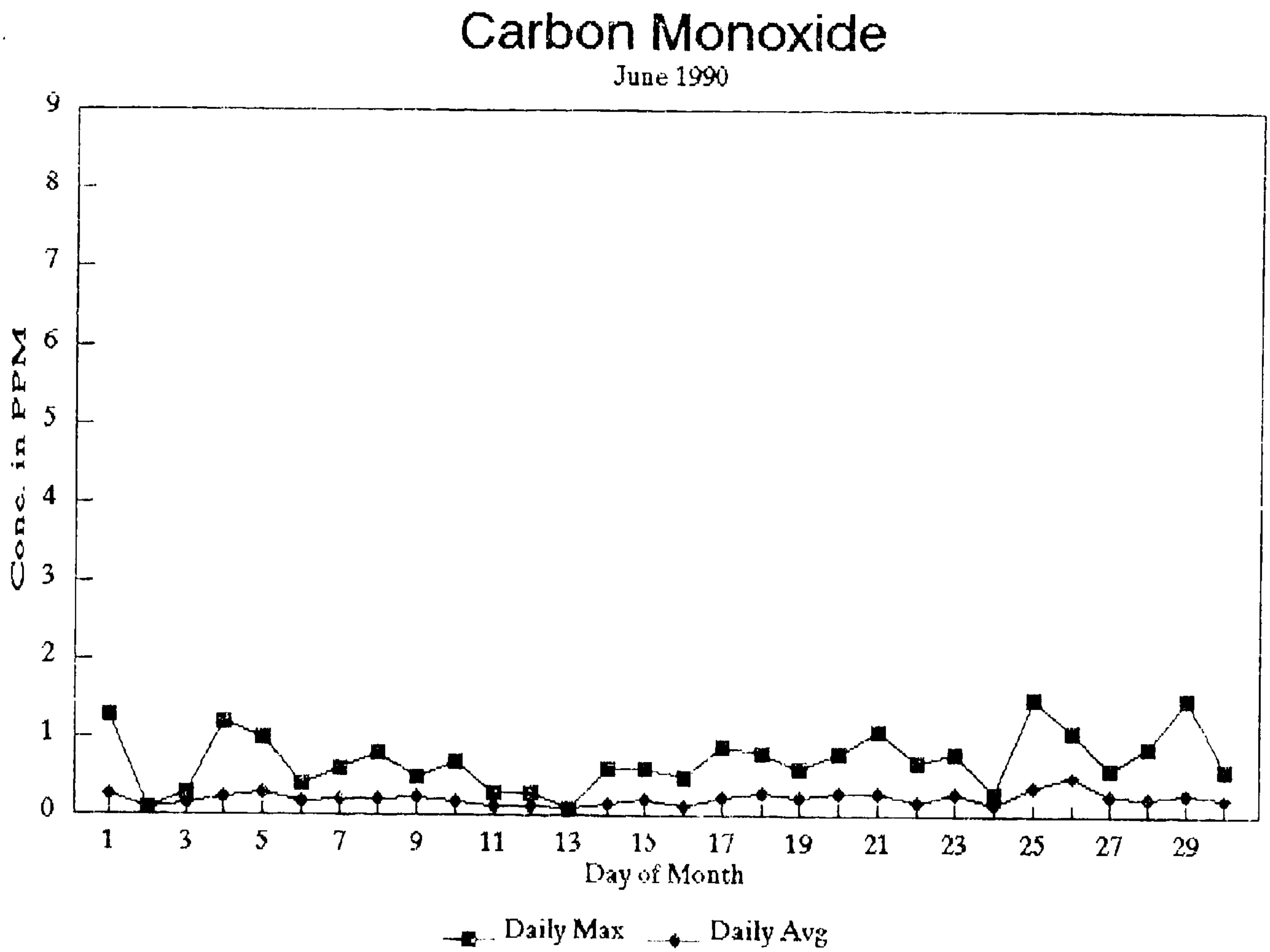
Day of Month
Daily Max
Daily Avg



Carbon Monoxide
June 1990
Conc. in PPM
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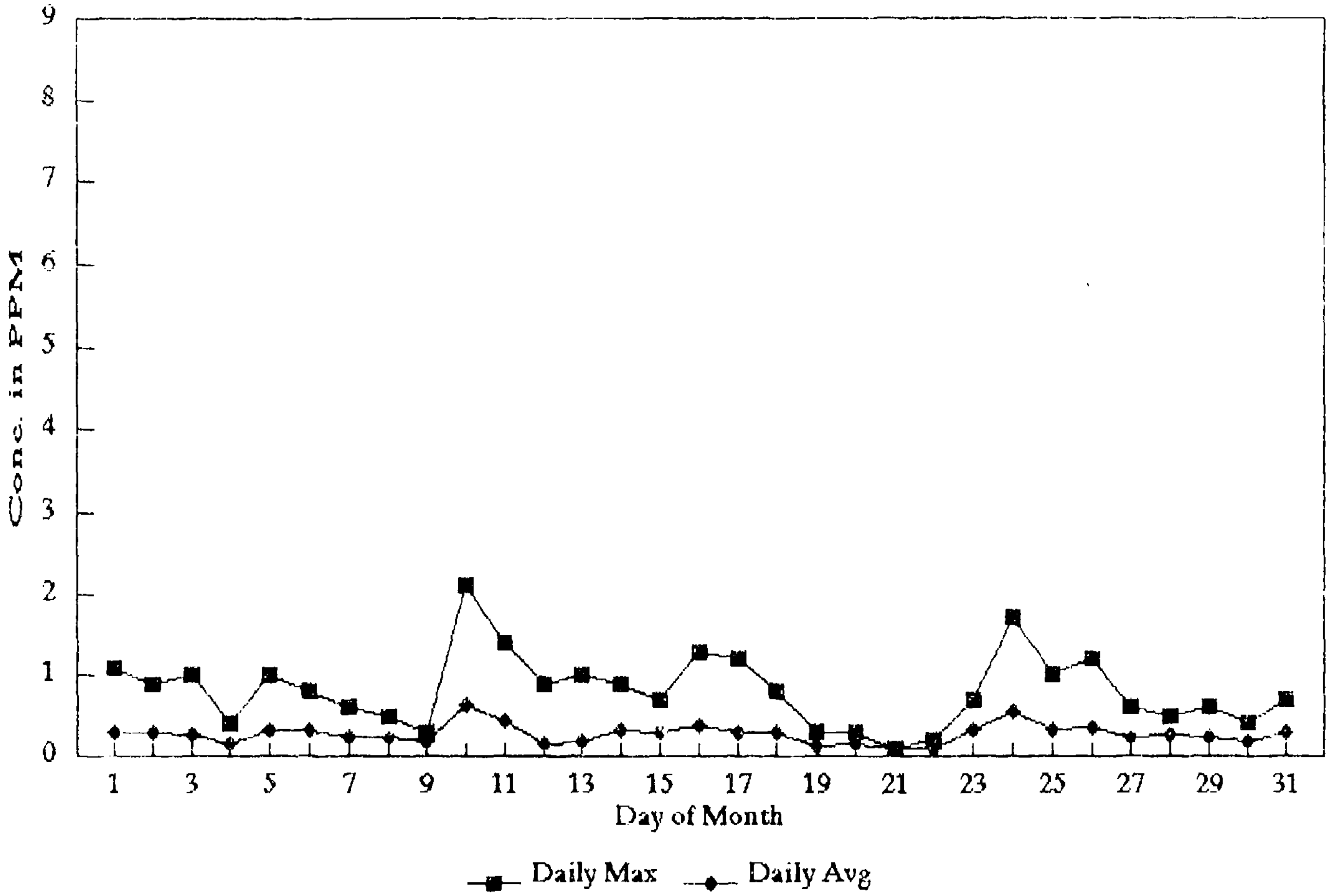
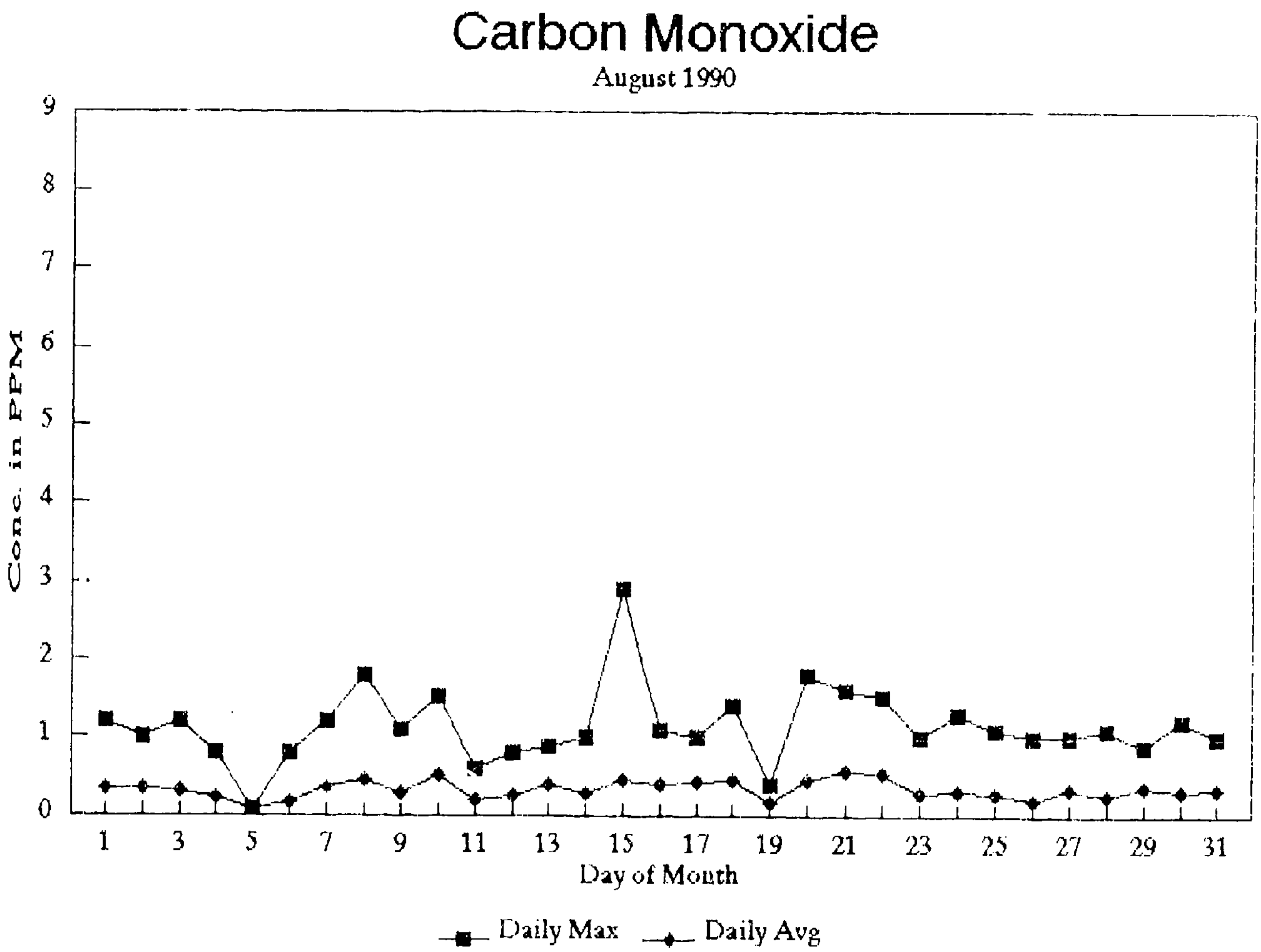
Day of Month
Daily Max
Daily Avg

Carbon Monoxide

July 1990





Carbon Monoxide
August 1990
Conc. in PPM
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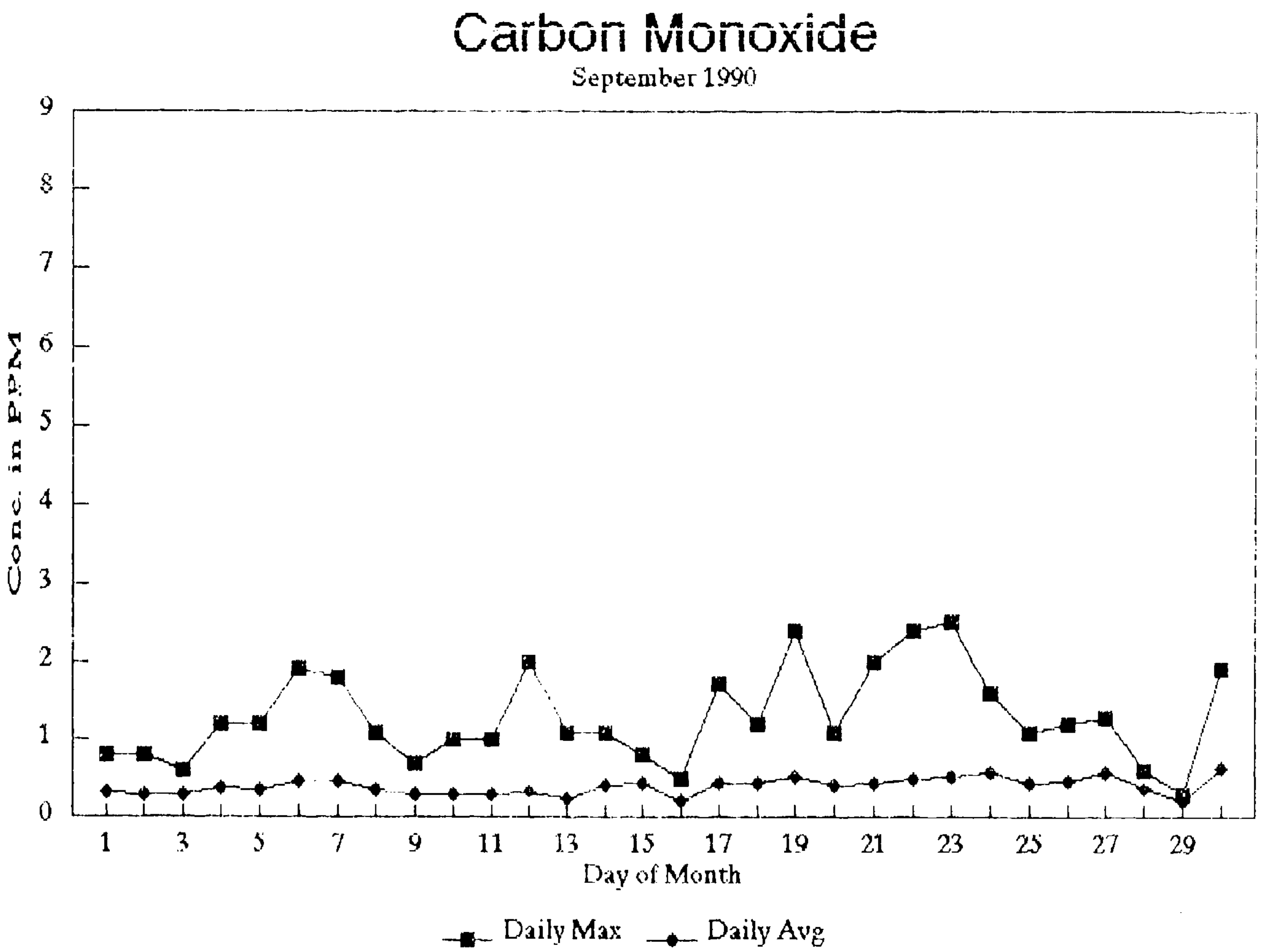
31
Day of Month
Daily Max
Daily Avg



Carbon Monoxide
September 1990
Conc. in PPM
0
1
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29
Day of Month
Daily Max
Daily Avg

12 Ozone (O_3)

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
10	1	274	0.048	0.007	0.031	24
10	2	275	0.053	0.005	0.027	24
10	3	276	0.032	0.006	0.017	24
10	4	277	0.043	0.003	0.023	24
10	5	278	0.053	0.016	0.034	24
10	6	279	0.054	0.001	0.026	24
10	7	280	0.052	0.001	0.025	24
10	8	281	0.053	0.001	0.028	24
10	9	282	0.048	0.001	0.024	18
10	10	283	0.058	0.001	0.027	24
10	11	284	0.041	0.001	0.019	20
10	12	285	0.053	0.003	0.025	24
10	13	286	0.054	0.004	0.025	22
10	14	287	0.046	0.009	0.024	24
10	15	288	0.036	0.001	0.022	24
10	16	289	0.031	0.015	0.023	24
10	17	290	0.031	0.012	0.022	24
10	18	291	0.036	0.001	0.017	24
10	19	292	0.047	0.001	0.016	24
10	20	293	0.037	0.001	0.014	24
10	21	294	0.050	0.001	0.020	24
10	22	295	0.044	0.001	0.020	24
10	23	296	0.049	0.001	0.020	24
10	24	297	0.042	0.001	0.013	22
10	25	298	0.018	0.001	0.007	24
10	26	299	0.047	0.010	0.027	24
10	27	300	0.049	0.001	0.022	24
10	28	301	0.052	0.001	0.021	16
10	29	302	0.031	0.007	0.020	24
10	30	303	0.037	0.001	0.017	24
10	31	304	0.038	0.002	0.023	24
11	1	305	0.035	0.001	0.019	24
11	2	306	0.046	0.001	0.017	24
11	3	307	0.038	0.001	0.017	24
11	4	308	0.047	0.001	0.020	24
11	5	309	0.037	0.001	0.026	24
11	6	310	0.041	0.001	0.020	24
11	7	311	0.041	0.009	0.031	24
11	8	312	0.042	0.023	0.033	22
11	9	313	0.034	0.001	0.022	24
11	10	314	0.032	0.001	0.011	24
11	11	315	0.034	0.001	0.015	24
11	12	316	0.040	0.001	0.021	24
11	13	317	0.032	0.001	0.019	24
11	14	318	0.036	0.001	0.020	24
11	15	319	0.037	0.011	0.024	24
11	16	320	0.028	0.001	0.014	24
11	17	321	0.039	0.001	0.015	24
11	18	322	0.042	0.001	0.017	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
11	19	323	0.035	0.001	0.019	24
11	20	324	0.034	0.001	0.012	22
11	21	325	0.034	0.001	0.014	24
11	22	326	0.032	0.001	0.024	24
11	23	327	0.025	0.001	0.008	24
11	24	328	0.041	0.001	0.023	24
11	25	329	0.039	0.003	0.025	24
11	26	330	0.039	0.001	0.019	24
11	27	331	0.036	0.001	0.029	24
11	28	332	0.032	0.001	0.012	24
11	29	333	0.043	0.001	0.017	24
11	30	334	0.035	0.001	0.011	24
12	1	335	0.040	0.001	0.017	24
12	2	336	0.035	0.001	0.014	24
12	3	337	0.035	0.001	0.011	24
12	4	338	0.038	0.001	0.020	24
12	5	339	0.035	0.003	0.024	24
12	6	340	0.029	0.001	0.018	24
12	7	341	0.030	0.001	0.014	24
12	8	342	0.035	0.001	0.007	23
12	9	343	0.037	0.001	[illegible]	23
12	10	344	0.033	0.003	0.024	24
12	11	345	0.023	0.001	0.011	24
12	12	346	0.036	0.003	0.020	24
12	13	347	0.038	0.001	0.021	24
12	14	348	0.036	0.001	[illegible]	24
12	15	349	0.028	0.001	0.014	24
12	16	350	0.028	0.001	0.015	20
12	17	351	0.027	0.001	0.011	24
12	18	352	0.038	0.001	0.024	24
12	19	353	0.040	0.001	0.009	20
12	20	354	0.038	0.001	0.024	21
12	21	355	0.036	0.027	0.033	24
12	22	356	0.045	0.001	0.017	23
12	23	357	0.048	0.001	0.024	24
12	24	358	0.042	0.001	0.020	
12	25	359	0.041	0.002	0.019	24
12	26	360	0.040	0.002	0.018	24
12	27	361	0.039	0.001	0.014	24
12	28	362	0.032	0.001	0.018	22
12	29	363	0.034	0.001	0.019	24
12	30	364	0.036	0.001	0.017	24
12	31	365	0.038	0.001	0.016	24
1	1	1	0.035	0.002	0.016	24
1	2	2	0.043	0.001	0.015	24
1	3	3	0.033	0.001	0.021	24
1	4	4	0.022	0.001	0.009	24
1	5	5	0.040	0.001	0.017	24
1	6	6	0.040	0.002	0.019	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
1	7	7	0.041	0.002	0.019	24
1	8	8	0.036	0.016	0.027	24
1	9	9	0.040	0.001	0.030	24
1	10	10	0.040	0.004	0.025	24
1	11	11	0.036	0.004	0.027	24
1	12	12	0.025	0.001	0.009	24
1	13	13	0.038	0.001	0.020	24
1	14	14	0.044	0.001	0.030	24
1	15	15	0.036	0.001	0.012	24
1	16	16	0.044	0.001	0.021	24
1	17	17	0.043	0.001	0.021	24
1	18	18	0.028	0.003	0.016	24
1	19	19	0.032	0.001	0.016	24
1	20	20	0.053	0.002	0.023	24
1	21	21	0.052	0.003	0.028	24
1	22	22	0.053	0.005	0.031	23
1	23	23	0.043	0.019	0.036	24
1	24	24	0.040	0.006	0.029	24
1	25	25	0.042	0.029	0.037	24
1	26	26	0.052	0.001	0.033	24
1	27	27	0.042	0.004	0.032	24
1	28	28	0.041	0.011	0.028	24
1	29	29	0.041	0.012	0.031	24
1	30	30	0.043	0.001	0.024	24
1	31	31	0.043	0.001	0.021	24
2	1	32	0.038	0.003	0.022	22
2	2	33	0.039	0.001	0.013	24
2	3	34	0.045	0.001	0.022	24
2	4	35	0.041	0.001	0.019	24
2	5	36	0.044	0.001	0.021	24
2	6	37	0.044	0.001	0.018	24
2	7	38	0.045	0.001	0.020	24
2	8	39	0.045	0.004	0.030	24
2	9	40	0.041	0.001	0.029	24
2	10	41	0.039	0.023	0.034	24
2	11	42	0.042	0.003	0.024	24
2	12	43	0.040	0.001	0.022	24
2	13	44	0.029	0.020	0.026	24
2	14	45	0.030	0.022	0.025	24
2	15	46	0.039	0.002	0.018	23
2	16	47	0.057	0.001	0.024	24
2	17	48	0.049	0.009	0.033	24
2	18	49	0.045	0.013	0.033	24
2	19	50	0.045	0.008	0.024	24
2	20	51	0.039	0.001	0.022	24
2	21	52	0.044	0.002	0.022	24
2	22	53	0.044	0.001	0.019	24
2	23	54	0.046	0.001	0.020	24
2	24	55	0.031	0.001	0.014	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
2	25	56	0.047	0.001	0.020	24
2	26	57	0.043	0.001	0.017	24
2	27	58	0.030	0.003	0.024	24
2	28	59	0.024	0.005	0.019	24
3	1	60	0.048	0.001	0.018	23
3	2	61	0.051	0.001	0.020	21
3	3	62	0.053	0.001	0.032	24
3	4	63	0.055	0.004	0.033	24
3	5	64	0.043	0.001	0.025	23
3	6	65	0.034	0.016	0.025	24
3	7	66	0.067	0.017	0.037	24
3	8	67	0.046	0.002	0.024	24
3	9	68	0.076	0.002	0.024	24
3	10	69	0.074	0.001	0.031	24
3	11	70	0.076	0.001	0.031	24
3	12	71	0.060	0.009	0.041	24
3	13	72	0.056	0.037	0.046	24
3	14	73	0.062	0.001	0.030	24
3	15	74	0.052	0.008	0.035	23
3	16	75	0.053	0.003	0.033	24
3	17	76	0.042	0.016	0.031	24
3	18	77	0.048	0.020	0.037	24
3	19	78	0.061	0.001	0.029	24
3	20	79	0.058	0.006	0.033	24
3	21	80	0.053	0.001	0.034	24
3	22	81	0.036	0.009	0.022	10
3	23	82	0.022	0.014	0.018	10
3	24	83	0.032	0.017	0.026	21
3	25	84	0.049	0.007	0.029	24
3	26	85	0.035	0.014	0.021	18
3	27	86	0.053	0.001	0.022	20
3	28	87	0.042	0.025	0.035	24
3	29	88	0.044	0.015	0.028	20
3	30	89	0.046	0.001	0.029	16
3	31	90	0.057	0.001	0.029	24
4	1	91	0.051	0.009	0.031	24
4	2	92	0.050	0.007	0.029	24
4	3	93	0.055	0.009	0.032	22
4	4	94	0.053	0.011	0.032	24
4	5	95	0.040	0.030	0.036	24
4	6	96	0.053	0.013	0.033	22
4	7	97	0.059	0.005	0.034	24
4	8	98	0.060	0.012	0.036	24
4	9	99	0.042	0.006	0.027	24
4	10	100	0.031	0.008	0.022	24
4	11	101	0.042	0.012	0.021	24
4	12	102	0.054	0.001	0.020	19
4	13	103	0.058	0.007	0.037	23
4	14	104	0.049	0.001	0.028	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
4	15	105	0.057	0.005	0.029	24
4	16	106	0.039	0.010	0.029	24
4	17	107	0.028	0.011	0.022	24
4	18	108	0.054	0.003	0.025	24
4	19	109	0.053	0.001	0.028	22
4	20	110	0.059	0.007	0.032	24
4	21	111	0.056	0.013	0.033	24
4	22	112	0.049	0.014	0.037	24
4	23	113	0.049	0.011	0.032	24
4	24	114	0.053	0.001	0.023	24
4	25	115	0.041	0.001	0.023	22
4	26	116	0.049	0.010	0.033	23
4	27	117	0.058	0.005	0.040	24
4	28	118	0.045	0.015	0.032	24
4	29	119	0.055	0.023	0.037	24
4	30	120	0.050	0.013	0.031	24
5	1	121	0.037	0.022	0.029	24
5	2	122	0.063	0.001	0.034	24
5	3	123	0.055	0.011	0.038	24
5	4	124	0.054	0.002	0.032	24
5	5	125	0.061	0.014	0.041	24
5	6	[illegible]	0.070	0.027	0.048	24
5	7	127	0.071	0.022	0.045	24
5	8	128	0.033	0.016	0.024	24
5	9	129	0.051	0.023	0.036	24
5	10	130	0.054	0.003	0.028	23
5	11	131	0.034	0.013	0.026	24
5	12	132	[illegible]	0.017	0.036	24
5	13	133	0.064	[illegible]	0.036	24
5	14	134	0.054	0.004	0.030	24
5	15	135	0.059	0.006	0.039	24
5	16	136	0.053	0.022	0.042	24
5	17	137	0.063	0.012	0.037	24
5	18	138	0.067	0.002	0.042	24
5	19	139	0.072	0.025	0.052	24
5	20	140	0.057	0.022	0.040	24
5	21	141	0.061	0.009	0.038	24
5	22	142	0.061	0.006	0.038	24
5	23	143	0.058	0.004	0.037	24
5	24	144	0.060	0.002	0.034	23
5	25	145	0.066	0.030	0.045	24
5	26	146	0.071	0.032	0.047	24
5	27	147	0.056	0.024	0.044	24
5	28	148	0.052	0.033	0.045	24
5	29	149	0.042	0.014	0.033	24
5	30	150	0.053	0.002	0.034	24
5	31	151	0.056	0.010	0.035	24
6	1	152	0.055	0.003	0.036	24
6	2	153	0.058	0.025	0.045	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

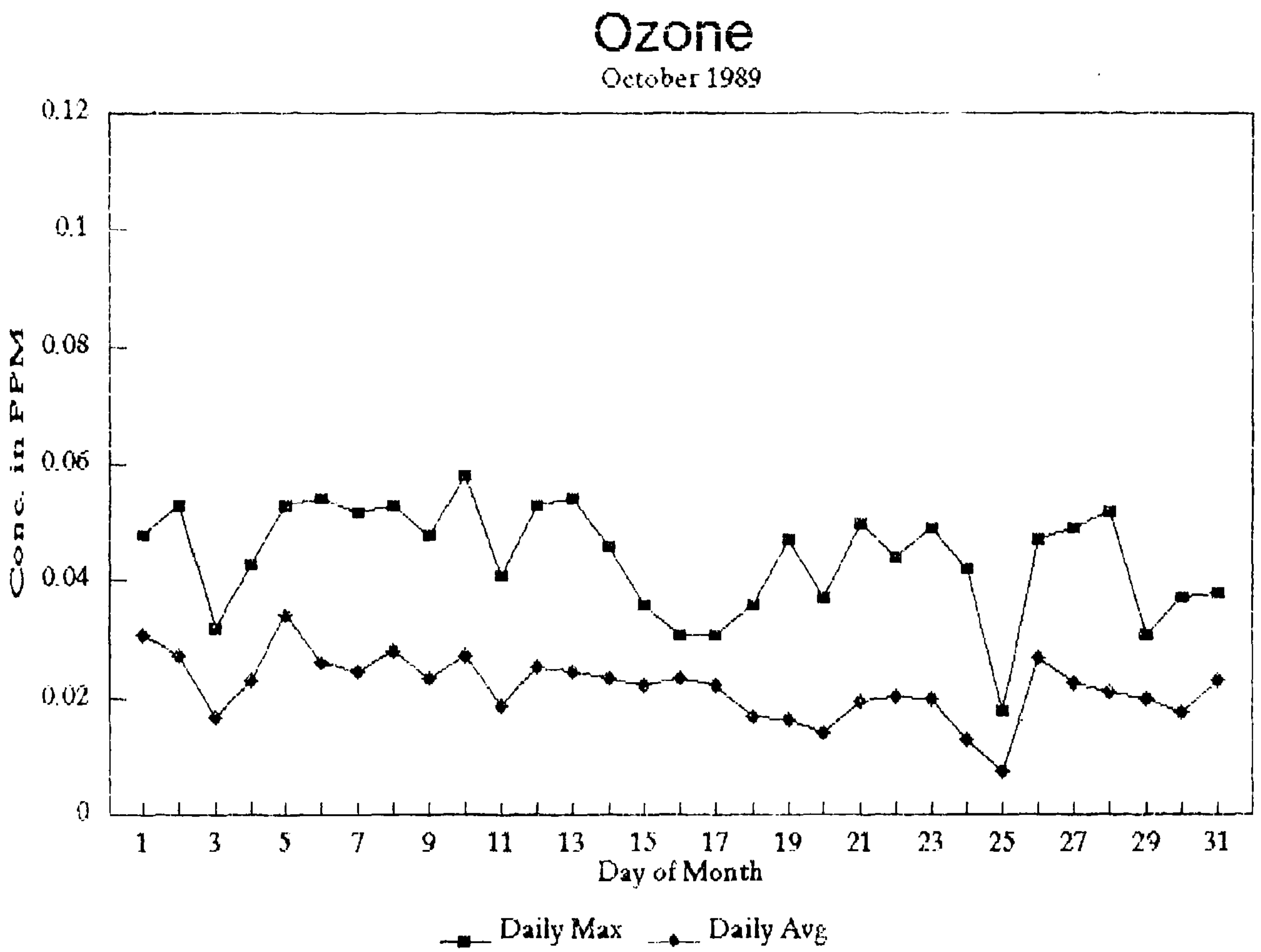
Calendar Month	Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
6	3	154	0.055	0.020	0.038	24
6	4	155	0.055	0.002	0.034	24
6	5	156	0.052	0.001	0.031	24
6	6	157	0.068	0.016	0.043	24
6	7	158	0.075	0.022	0.042	22
6	8	159	0.063	0.007	0.041	24
6	9	160	0.070	0.014	0.041	24
6	10	161	0.049	0.010	0.037	24
6	11	162	0.042	0.027	0.035	24
6	12	163	0.052	0.028	0.041	24
6	13	164	0.053	0.030	0.043	24
6	14	165	0.064	0.022	0.044	24
6	15	166	0.066	0.014	0.041	24
6	16	167	0.058	0.019	0.040	24
6	17	168	0.069	0.014	0.042	24
6	18	169	0.076	0.011	0.049	24
6	19	170	0.062	0.015	0.040	24
6	20	171	0.072	0.013	0.044	24
6	21	172	0.050	0.006	0.034	23
6	22	173	0.066	0.020	0.039	20
6	23	174	0.072	0.003	0.040	22
6	24	175	0.070	0.027	0.051	24
6	25	176	0.072	0.004	0.042	24
6	26	177	0.086	0.006	0.040	24
6	27	178	0.079	0.017	0.047	24
6	28	179	0.070	0.012	0.050	24
6	29	180	0.082	0.014	0.050	24
6	30	181	0.118	0.020	0.061	24
7	1	182	0.080	0.017	0.051	24
7	2	183	0.071	0.014	0.042	24
7	3	184	0.079	0.011	0.043	24
7	4	185	0.070	0.026	0.048	24
7	5	186	0.069	0.007	0.039	22
7	6	187	0.070	0.008	0.037	23
7	7	188	0.076	0.018	0.039	24
7	8	189	0.053	0.012	0.034	24
7	9	190	0.059	0.020	0.040	24
7	10	191	0.059	0.002	0.029	24
7	11	192	0.059	0.001	0.031	24
7	12	193	0.065	0.015	0.043	24
7	13	194	0.078	0.009	0.041	24
7	14	195	0.071	0.008	0.039	24
7	15	196	0.064	0.004	0.040	24
7	16	197	0.064	0.013	0.035	24
7	17	198	0.067	0.006	0.040	24
7	18	199	0.072	0.012	0.043	24
7	19	200	0.058	0.026	0.045	24
7	20	201	0.045	0.008	0.028	20
7	21	202	0.039	0.020	0.029	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
7	22	203	0.051	0.008	0.030	24
7	23	204	0.060	0.005	0.028	24
7	24	205	0.058	0.001	0.028	24
7	25	206	0.067	0.004	0.044	22
7	26	207	0.080	0.004	0.046	24
7	27	208	0.068	0.017	0.047	24
7	28	209	0.077	0.017	0.045	24
7	29	210	0.063	0.007	0.036	24
7	30	211	0.068	0.005	0.039	24
7	31	212	0.085	0.013	0.042	24
8	1	213	0.069	0.006	0.042	24
8	2	214	0.067	0.013	0.037	23
8	3	215	0.074	0.007	0.038	24
8	4	216	0.070	0.002	0.039	24
8	5	217	0.059	0.012	0.037	24
8	6	218	0.063	0.013	0.040	24
8	7	219	0.063	0.005	0.037	24
8	8	220	0.061	0.001	0.032	24
8	9	221	0.077	0.009	0.041	24
8	10	222	0.065	0.003	0.033	24
8	11	223	0.065	0.018	0.043	24
8	12	224	0.054	0.010	0.031	24
8	13	225	0.082	0.011	0.036	24
8	14	226	0.069	0.006	0.034	24
8	15	227	0.063	0.011	0.031	24
8	16	228	0.071	0.001	0.034	23
8	17	229	0.056	0.004	0.027	24
8	18	230	0.063	0.001	0.031	24
8	19	231	0.050	0.014	0.034	17
8	20	232	0.062	0.002	0.039	16
8	21	233	0.063	0.001	0.027	24
8	22	234	0.057	0.002	0.024	24
8	23	235	0.054	0.005	0.031	24
8	24	236	0.059	0.003	0.037	24
8	25	237	0.061	0.004	0.033	24
8	26	238	0.057	0.005	0.032	24
8	27	239	0.062	0.008	0.031	24
8	28	240	0.063	0.004	0.035	24
8	29	241	0.073	0.010	0.040	24
8	30	242	0.056	0.005	0.037	23
8	31	243	0.061	0.002	0.042	23
9	1	244	0.085	0.005	0.047	24
9	2	245	0.072	0.010	0.042	24
9	3	246	0.073	0.008	0.038	24
9	4	247	0.086	0.008	0.045	24
9	5	248	0.072	0.006	0.043	24
9	6	249	0.068	0.004	0.038	24
9	7	250	0.060	0.002	0.032	24
9	8	251	0.073	0.002	0.035	24

Ozone (O3) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
9	9	252	0.060	0.002	0.033	24
9	10	253	0.068	0.004	0.034	24
9	11	254	0.058	0.010	0.034	24
9	12	255	0.083	0.008	0.042	24
9	13	256	0.056	0.016	0.033	18
9	14	257	0.078	0.007	0.036	23
9	15	258	0.091	0.011	0.044	23
9	16	259	0.051	0.031	0.039	24
9	17	260	0.042	0.001	0.026	24
9	18	261	0.056	0.007	0.032	24
9	19	262	0.061	0.002	0.033	24
9	20	263	0.055	0.001	0.028	24
9	21	264	0 055	0.003	0.031	24
9	22	265	0.056	0.001	0.031	24
9	23	266	0.066	0.001	0.033	24
9	24	267	0.056	0.004	0.027	24
9	25	268	0.059	0.007	0.031	24
9	26	269	0.064	0.003	0.032	24
9	27	270	0.047	0.001	0.020	23
9	28	271	0.025	0.006	0.016	24
9	29	272	0.040	0.005	0.023	24
9	30	273	0.054	0.001	0.021	24



Ozone
October 1989
Conc. in PPM
0.12
0.1
0.08
0.06
0.04
0.02
0
1
3
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11
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15
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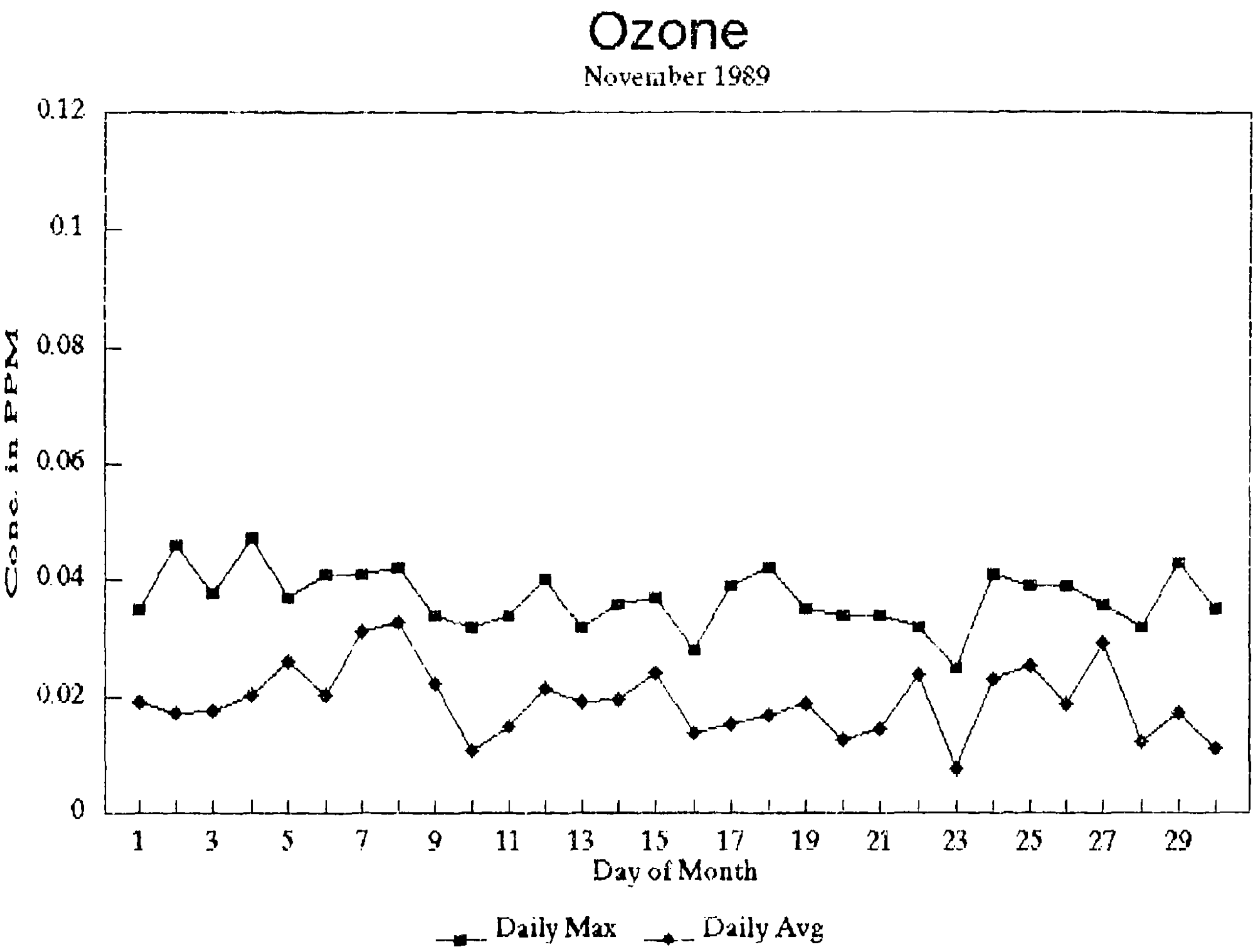
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg



Ozone
November 1989
Conc. in PPM
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0.1
0.08
0.06
0.04
0.02
0
1
3
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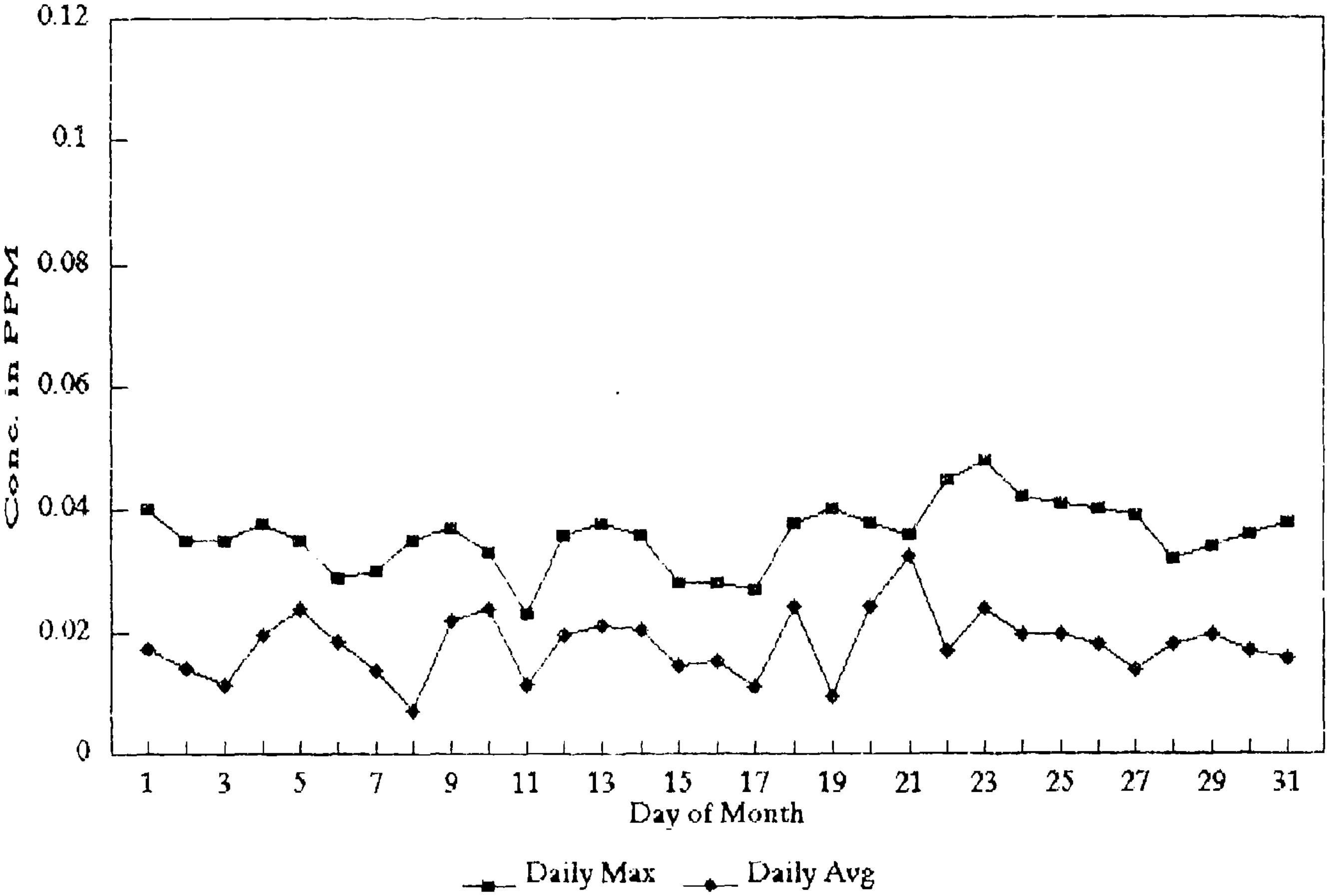
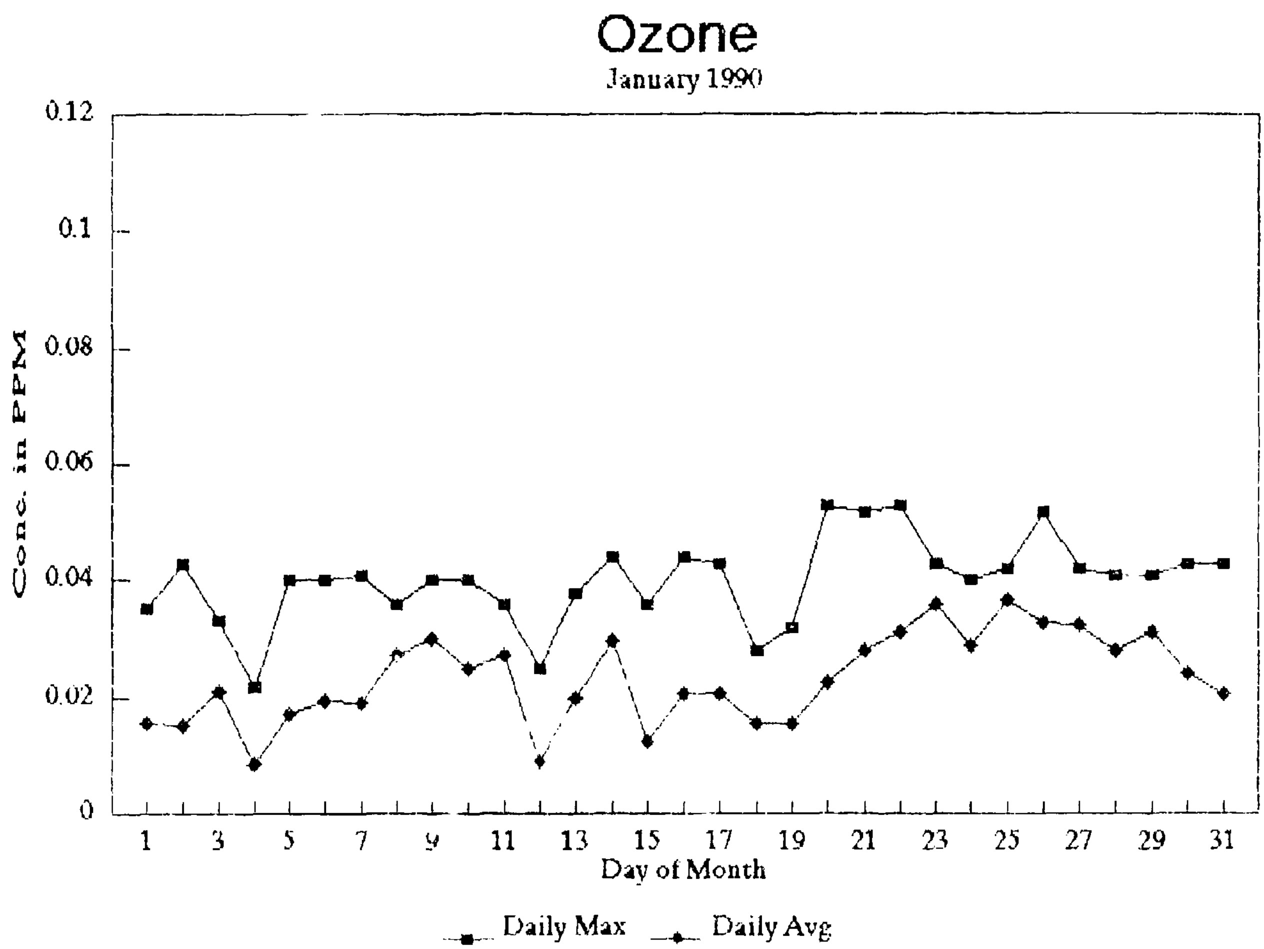
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

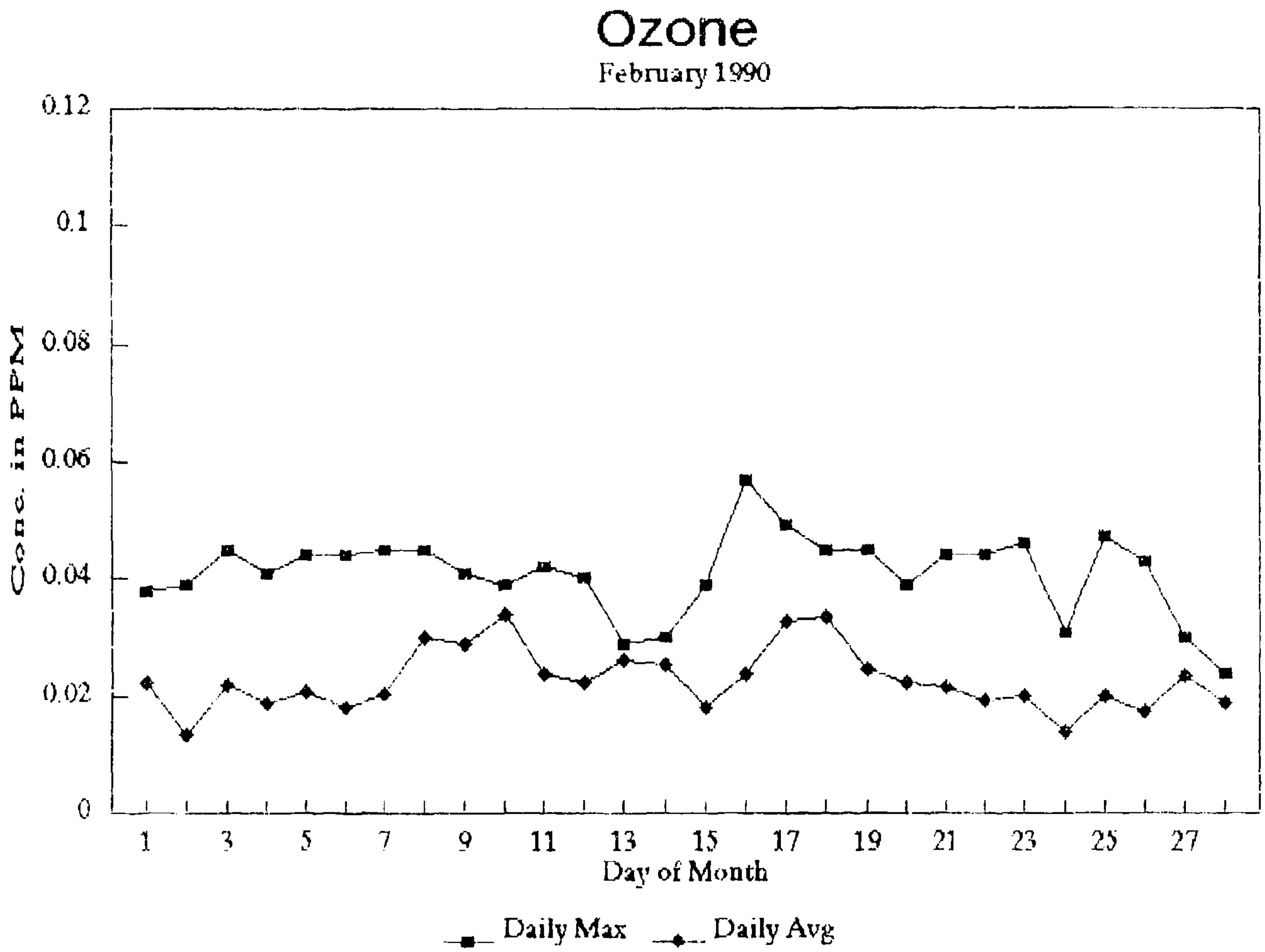
Ozone

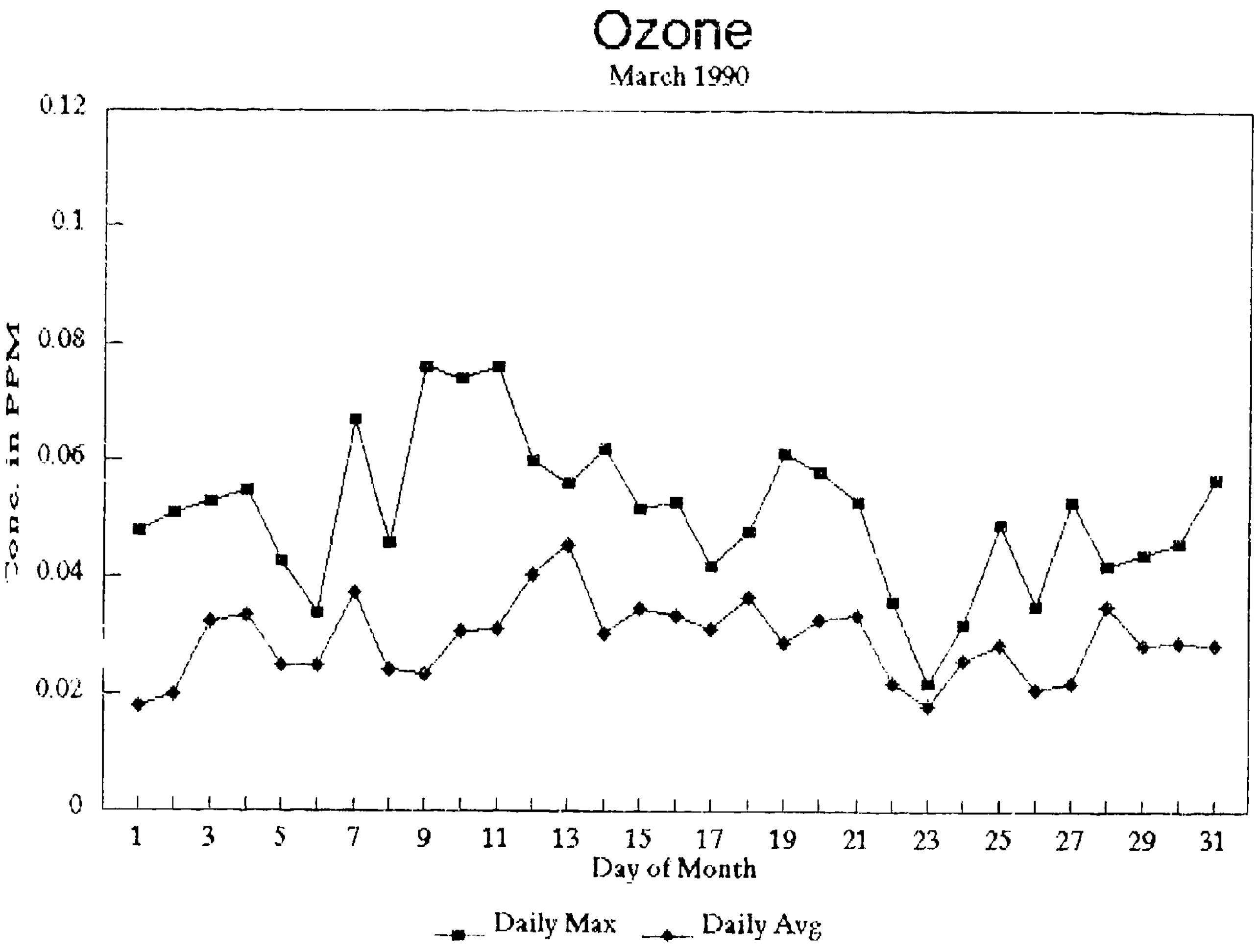
December 1989

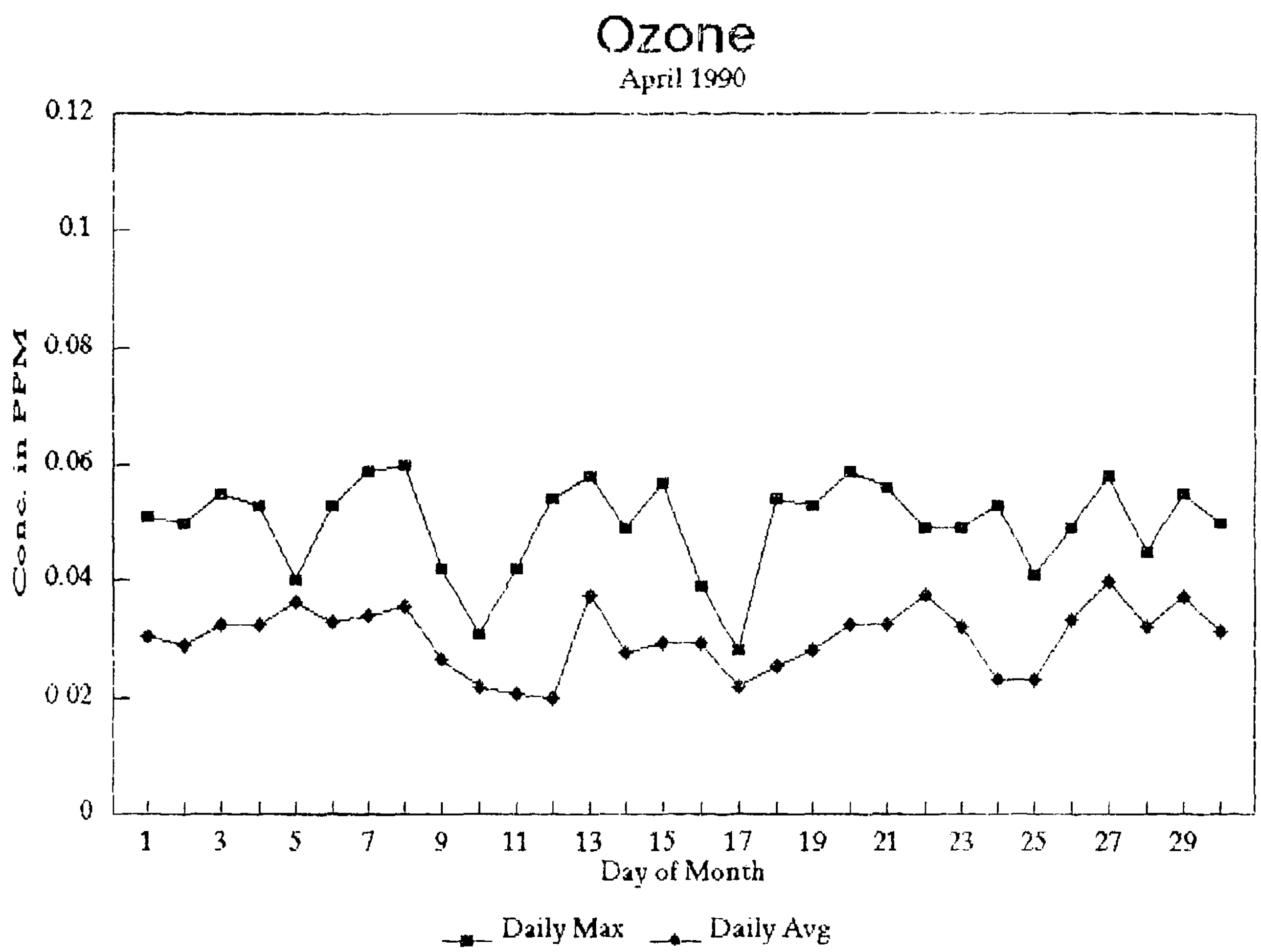




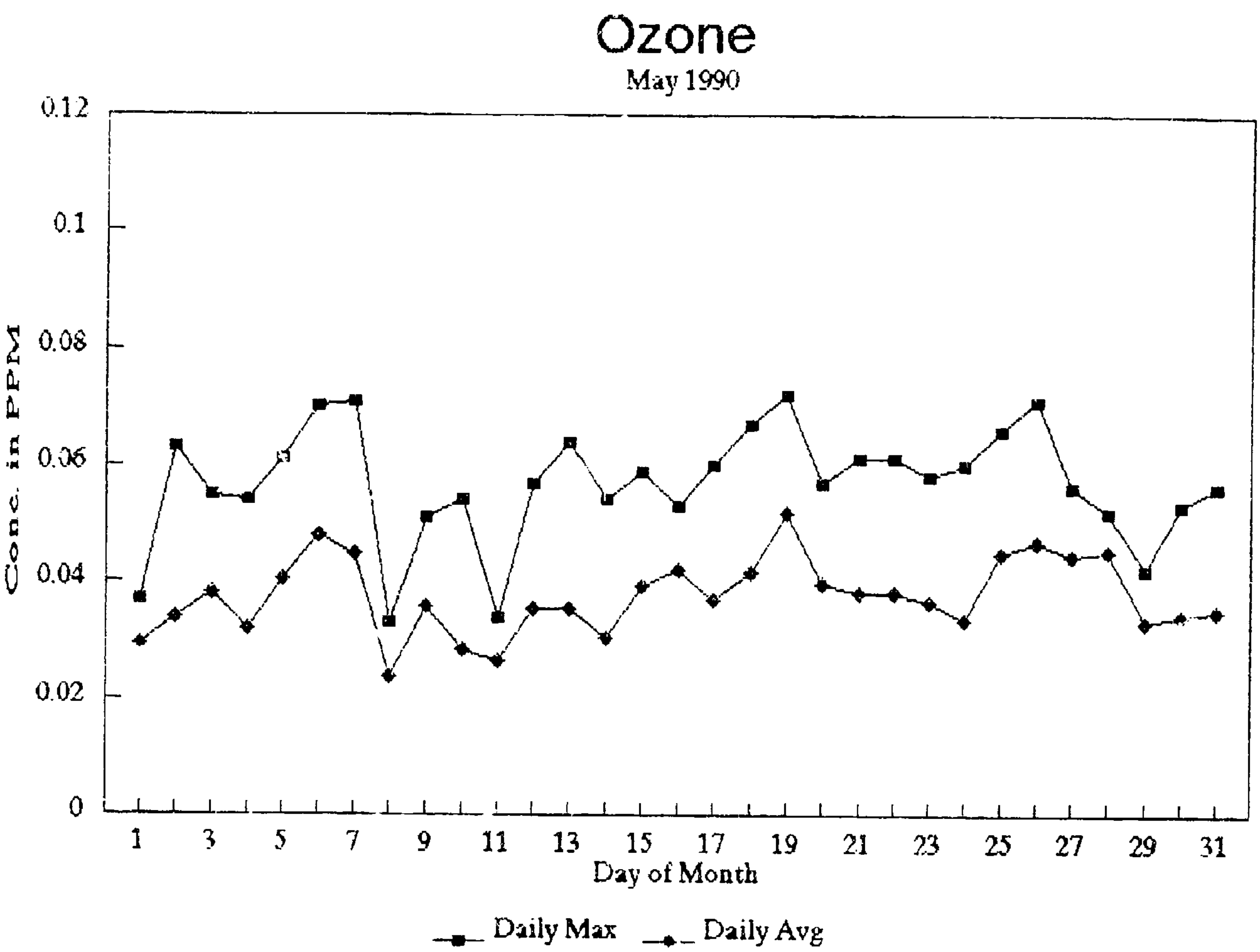
Ozone
January 1990
Conc. in PPM
0.12
0.1
0.08
0.06
0.04
0.02
0
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Ozone
February 1990
Conc. in PPM
0.12
0.1
0.08
0.06
0.04
0.02
0
1
3
5
7
9
11
13
15
17
19
21
23
25
27
Day of Month
Daily Max
Daily Avg

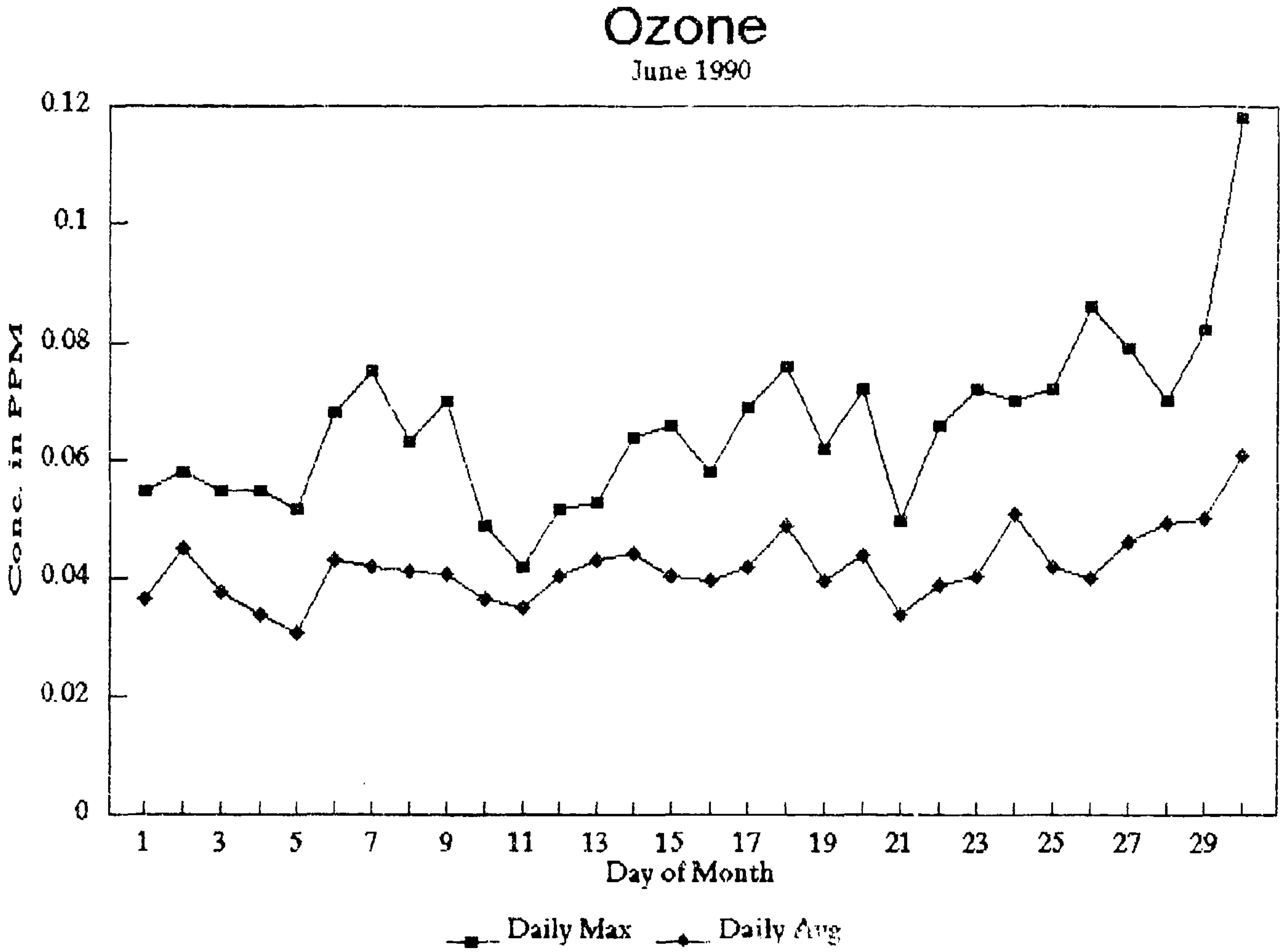

Ozone
March 1990
0.12
0.1
0.08
0.06
0.04
0.02
0
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

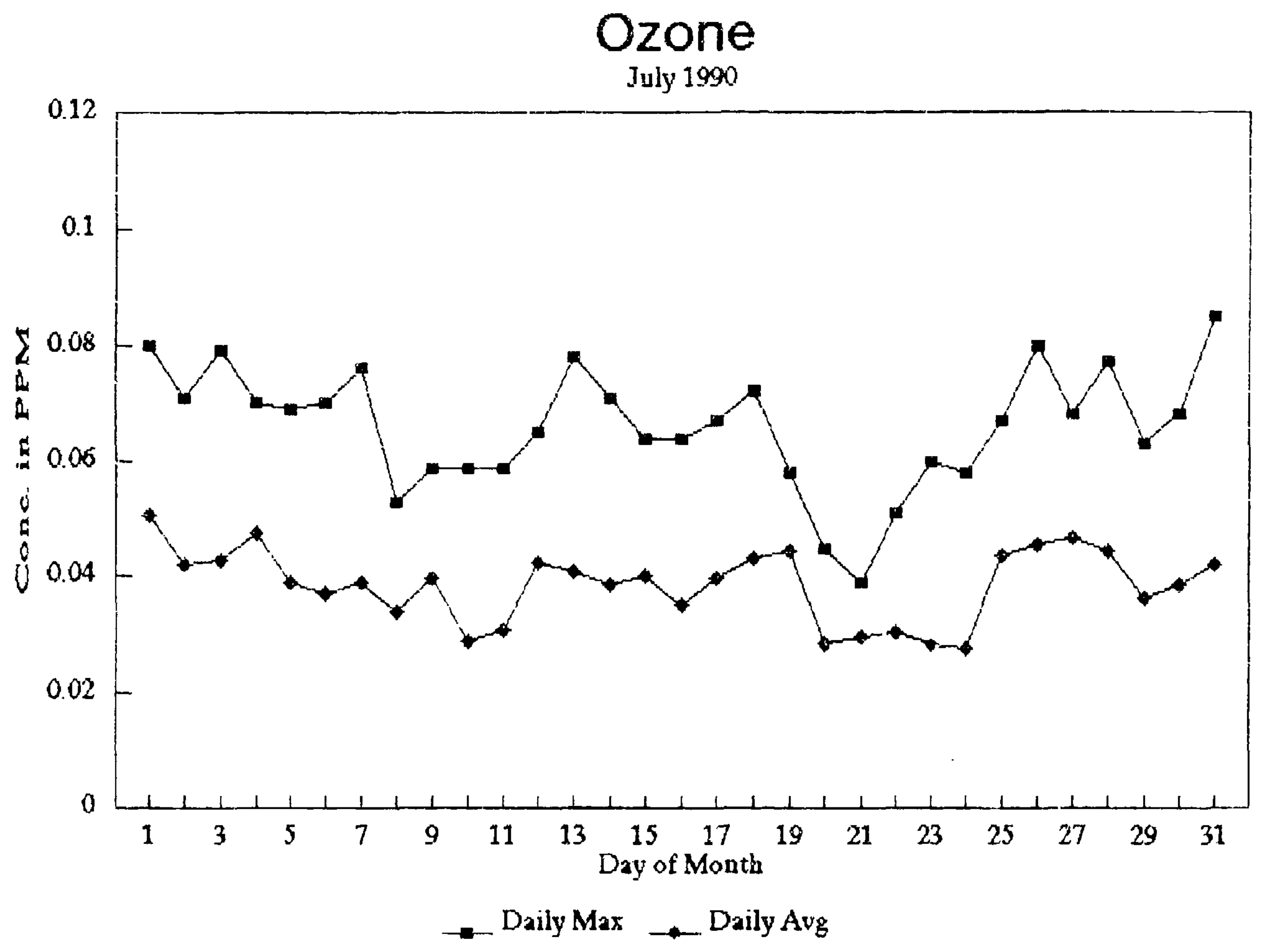


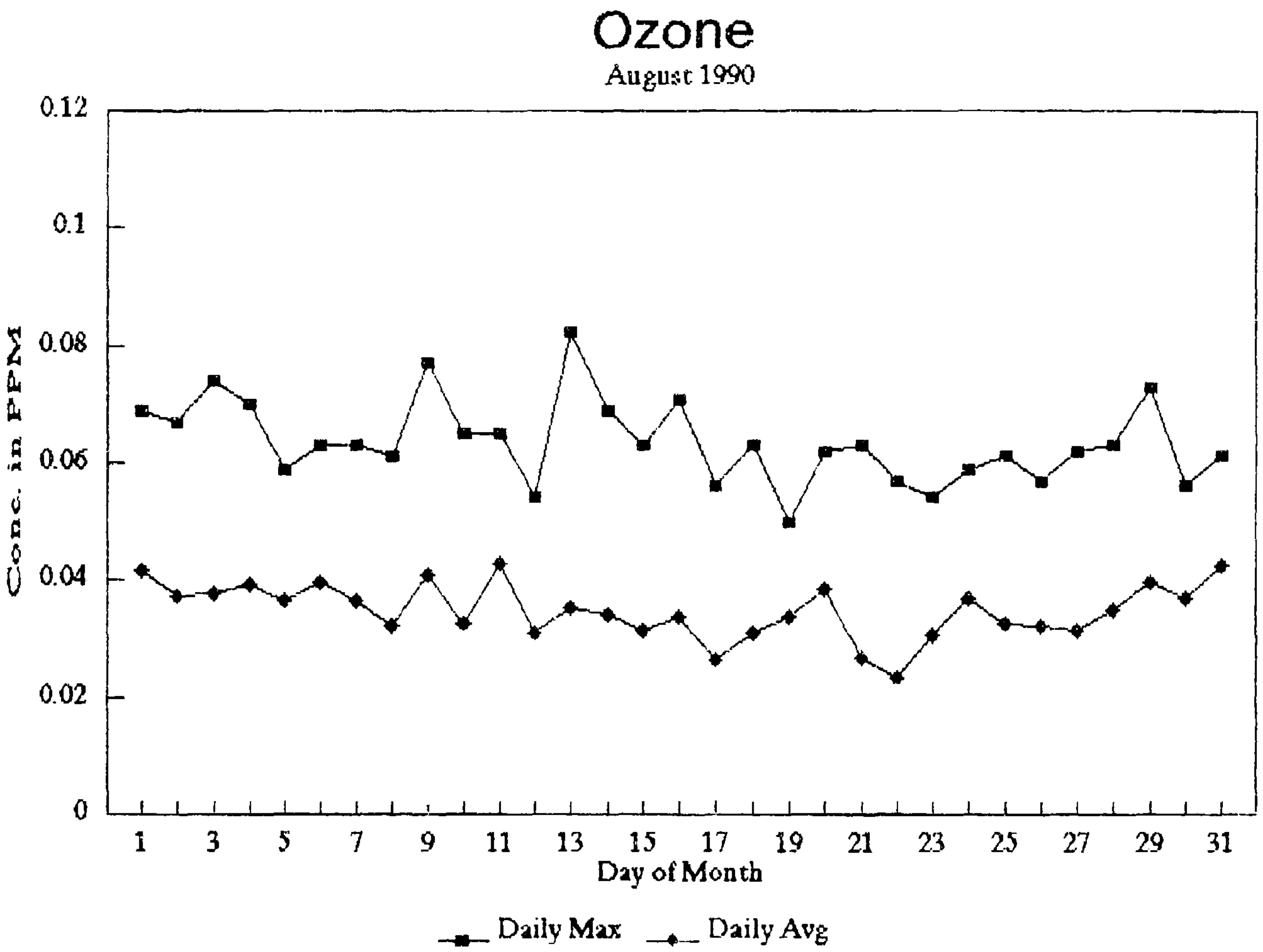
Ozone
April 1990
Conc. in PPM
0.12
0.1
0.08
0.06
0.04
0.02
0
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

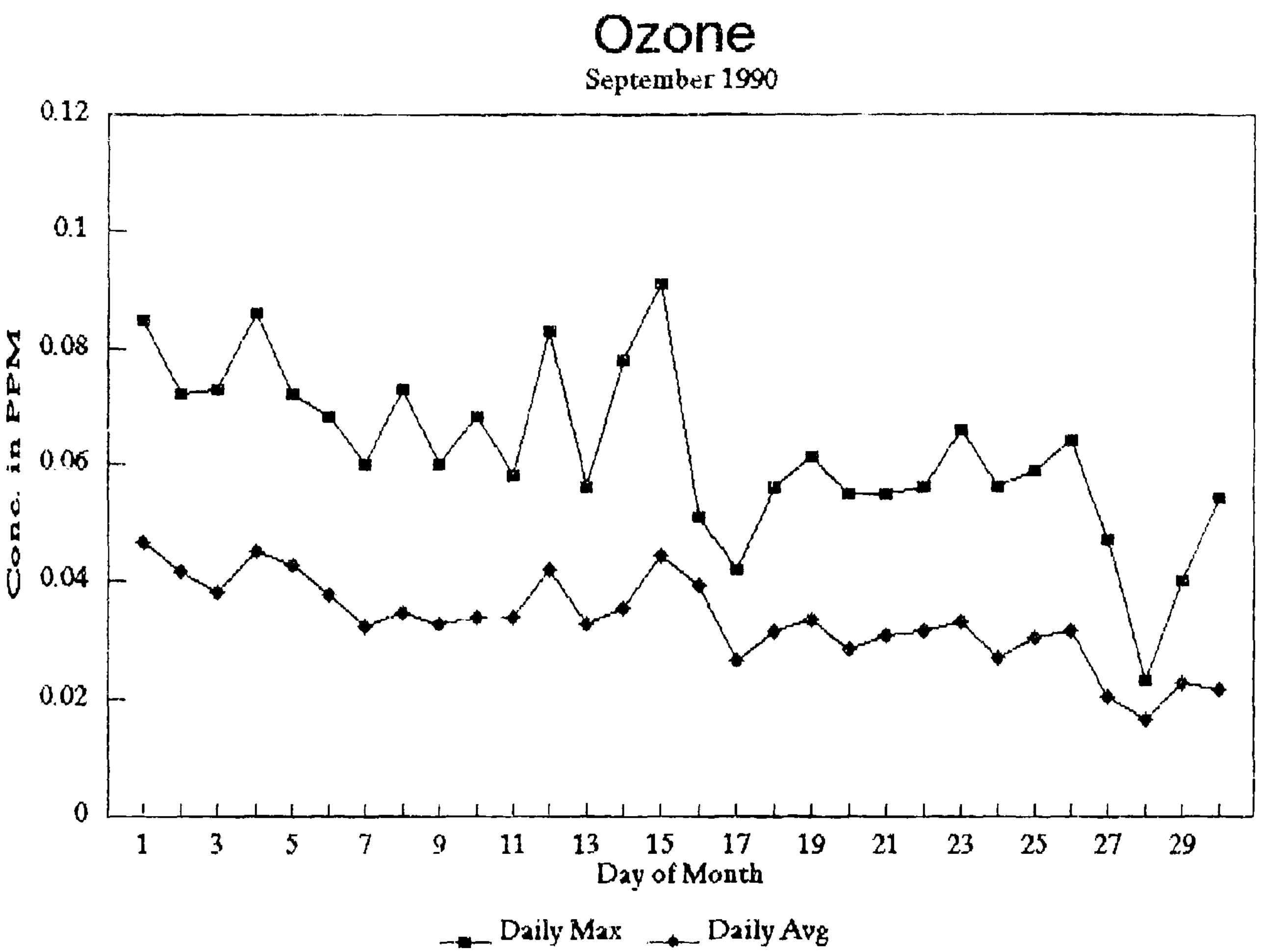


Ozone
May 1990
Conc. in PPM
0.12
0.1
0.08
0.06
0.04
0.02
0
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Ozone
June 1990
0.12
0.1
0.08
0.06
0.04
0.02
0
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg


Ozone
July 1990
0.12
0.1
0.08
0.06
0.04
0.02
0
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Ozone
August 1990
0.12
0.1
0.08
0.06
0.04
0.02
0
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg



Ozone
September 1990
0.12
0.1
0.08
0.06
0.04
0.02
0
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

13 Sulfur Dioxide (SO_2)

Sulfur Dioxide (SO2) Daily Data in parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
10	1	274	0.005	0.001	0.001	24
10	2	275	0.007	0.001	0.002	24
10	3	276	0.001	0.001	0.001	24
10	4	277	0.004	0.001	0.001	24
10	5	278	0.001	0.001	0.001	24
10	6	279	0.008	0.001	0.002	24
10	7	280	0.005	0.001	0.001	24
10	8	281	0.010	0.001	0.002	24
10	9	282	0.011	0.001	0.002	24
10	10	283	0.020	0.001	0.003	24
10	11	284	0.027	0.001	0.004	24
10	12	285	0.007	0.001	0.002	24
10	13	286	0.003	0.001	0.001	21
10	14	287	0.008	0.001	0.001	24
10	15	288	0.011	0.001	0.002	24
10	16	289	0.001	0.001	0.001	22
10	17	290	0.003	0.001	0.001	24
10	18	291	0.001	0.001	0.001	24
10	19	292	0.002	0.001	0.001	24
10	20	293	0.005	0.001	0.002	24
10	21	294	0.004	0.001	0.001	24
10	22	295	0.006	0.001	0.002	24
10	23	296	0.005	0.001	0.001	21
10	24	297	0.011	0.001	0.004	24
10	25	298	0.014	0.001	0.004	24
10	26	299	0.006	0.001	0.001	24
10	27	300	0.007	0.001	0.001	24
10	28	301	0.011	0.001	0.003	16
10	29	302	0.001	0.001	0.001	24
10	30	303	0.004	0.001	0.002	24
10	31	304	0.003	0.001	0.001	24
11	1	305	0.001	0.001	0.001	24
11	2	306	0.003	0.001	0.001	24
11	3	307	0.014	0.001	0.002	24
11	4	308	0.008	0.001	0.002	24
11	5	309	0.004	0.001	0.001	24
11	6	310	0.008	0.001	0.002	24
11	7	311	0.004	0.001	0.001	24
11	8	312	0.001	0.001	0.001	21
11	9	313	0.006	0.001	0.001	24
11	10	314	0.012	0.001	0.003	24
11	11	315	0.010	0.001	0.003	24
11	12	316	0.007	0.001	0.001	24
11	13	317	0.008	0.001	0.002	24
11	14	318	0.008	0.001	0.002	24
11	15	319	0.001	0.001	0.001	24

Sulfur Dioxide (SO_2) Daily Data in parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
11	16	320	0.005	0.001	0.002	24
11	17	321	0.004	0.001	0.001	24
11	18	322	0.011	0.001	0.002	24
11	19	323	0.018	0.001	0.003	24
11	20	324	0.008	0.001	0.002	22
11	21	325	0.009	0.001	0.004	24
11	22	326	0.003	0.001	0.001	24
11	23	327	0.010	0.001	0.004	24
11	24	328	0.012	0.001	0.003	24
11	25	329	0.010	0.001	0.001	24
11	26	330	0.007	0.001	0.002	24
11	27	331	0.001	0.001	0.001	24
11	28	332	0.009	0.001	0.004	24
11	29	333	0.004	0.001	0.001	24
11	30	334	0.018	0.001	0.006	24
12	1	335	0.010	0.001	0.003	24
12	2	336	0.008	0.001	0.003	24
12	3	337	0.021	0.001	0.004	24
12	4	338	0.007	0.001	0.001	22
12	5	339	0.005	0.001	0.002	24
12	6	340	0.001	0.001	0.001	24
12	7	341	0.003	0.001	0.001	24
12	8	342	0.017	0.001	0.004	24
12	9	343	0.014	0.001	0.002	23
12	10	344	0.001	0.001	0.001	24
12	11	345	0.004	0.001	0.002	24
12	12	346	0.006	0.001	0.002	24
12	13	347	0.007	0.001	0.002	24
12	14	348	0.014	0.001	0.003	24
12	15	349	0.019	0.001	0.005	24
12	16	350	0.016	0.001	0.004	21
12	17	351	0.027	0.001	0.009	24
12	18	352	0.004	0.001	0.001	24
12	19	353	0.026	0.004	0.009	24
12	20	354	0.017	0.001	0.004	23
12	21	355	0.004	0.001	0.001	24
12	22	356	0.018	0.001	0.007	22
12	23	357	0.025	0.001	0.006	24
12	24	358	0.002	0.001	0.001	24
12	25	359	0.009	0.001	0.003	24
12	26	360	0.011	0.001	0.003	24
12	27	361	0.010	0.001	0.002	24
12	28	362	0.012	0.001	0.003	24
12	29	363	0.004	0.001	0.001	22
12	30	364	0.015	0.001	0.002	24
12	31	365	0.010	0.001	0.003	24

Sulfur Dioxide (SO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
1	1	1	0.013	0.001	0.003	24
1	2	2	0.029	0.001	0.005	24
1	3	3	0.001	0.001	0.001	24
1	4	4	0.037	0.001	0.008	24
1	5	5	0.004	0.001	0.001	24
1	6	6	0.011	0.001	0.003	24
1	7	7	0.008	0.001	0.002	24
1	8	8	0.021	0.001	0.002	24
1	9	9	0.008	0.001	0.002	24
1	10	10	0.008	0.001	0.002	24
1	11	11	0.003	0.001	0.001	24
1	12	12	0.006	0.001	0.002	24
1	13	13	0.011	0.001	0.003	24
1	14	14	0.010	0.001	0.002	24
1	15	15	0.021	0.001	0.005	24
1	16	16	0.005	0.001	0.003	24
1	17	17	0.021	0.001	0.004	11
1	18	18	0.002	0.001	0.001	10
1	19	19	0.001	0.001	0.001	24
1	20	20	0.004	0.001	0.002	24
1	21	21	0.008	0.001	0.002	24
1	22	22	0.006	0.001	0.002	23
1	23	23	0.027	0.001	0.003	24
1	24	24	0.003	0.001	0.001	22
1	25	25	0.003	0.001	0.001	24
1	26	26	0.006	0.001	0.002	24
1	27	27	0.001	0.001	0.001	24
1	28	28	0.004	0.001	0.002	24
1	29	29	0.009	0.001	0.002	24
1	30	30	0.003	0.001	0.001	24
1	31	31	0.006	0.001	0.002	24
2	1	32	0.002	0.001	0.001	22
2	2	33	0.029	0.001	0.004	24
2	3	34	0.005	0.001	0.002	24
2	4	35	0.007	0.001	0.002	24
2	5	36	0.005	0.001	0.002	24
2	6	37	0.010	0.001	0.002	24
2	7	38	0.013	0.001	0.003	24
2	8	39	0.004	0.001	0.002	24
2	9	40	0.019	0.001	0.003	24
2	10	41	0.001	0.001	0.001	24
2	11	42	0.007	0.001	0.002	24
2	12	43	0.010	0.001	0.002	24
2	13	44	0.001	0.001	0.001	24
2	14	45	0.001	0.001	0.001	24
2	15	46	0.012	0.001	0.002	22

Sulfur Dioxide (SO_2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
2	16	47	0.006	0.001	0.002	24
2	17	48	0.004	0.001	0.001	24
2	18	49	0.001	0.001	0.001	24
2	19	50	0.016	0.001	0.002	24
2	20	51	0.003	0.001	0.001	24
2	21	52	0.006	0.001	0.002	24
2	22	53	0.010	0.001	0.002	24
2	23	54	0.007	0.001	0.002	24
2	24	55	0.009	0.001	0.004	24
2	25	56	0.007	0.001	0.002	24
2	26	57	0.006	0.001	0.002	24
2	27	58	0.001	0.001	0.001	24
2	28	59	0.008	0.001	0.001	24
3	1	60	0.012	0.001	0.002	22
3	2	61	0.007	0.001	0.002	24
3	3	62	0.003	0.001	0.001	24
3	4	63	0.004	0.001	0.001	24
3	5	64	0.003	0.001	0.001	23
3	6	65	0.001	0.001	0.001	24
3	7	66	0.008	0.001	0.002	24
3	8	67	0.022	0.001	0.003	24
3	9	68	0.020	0.001	0.005	24
3	10	69	0.014	0.001	0.004	24
3	11	70	0.011	0.001	0.003	24
3	12	71	0.008	0.001	0.002	24
3	13	72	0.001	0.001	0.001	24
3	14	73	0.007	0.001	0.003	24
3	15	74	0.007	0.001	0.002	22
3	16	75	0.007	0.001	0.002	24
3	17	76	0.014	0.001	0.002	24
3	18	77	0.004	0.001	0.001	24
3	19	78	0.005	0.001	0.002	24
3	20	79	0.010	0.001	0.002	24
3	21	80	0.004	0.001	0.002	24
3	22	81	0.001	0.001	0.001	24
3	23	82	0.001	0.001	0.001	24
3	24	83	0.001	0.001	0.001	18
3	25	84	0.038	0.001	0.004	24
3	26	85	0.010	0.001	0.002	24
3	27	86	0.010	0.001	0.003	24
3	28	87	0.001	0.001	0.001	24
3	29	88	0.001	0.001	0.001	22
3	30	89	0.001	0.001	0.001	21
3	31	90	0.021	0.001	0.003	24
4	1	91	0.006	0.001	0.001	24
4	2	92	0.026	0.001	0.004	24

Sulfur Dioxide (SO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
4	3	93	0.022	0.001	0.003	22
4	4	94	0.003	0.001	0.001	24
4	5	95	0.001	0.001	0.001	24
4	6	96	0.006	0.001	0.001	24
4	7	97	0.015	0.001	0.002	24
4	8	98	0.008	0.001	0.002	24
4	9	99	0.001	0.001	0.001	24
4	10	100	0.001	0.001	0.001	24
4	11	101	0.014	0.001	0.002	21
4	12	102	0.019	0.001	0.002	24
4	13	103	0.001	0.001	0.001	24
4	14	104	0.004	0.001	0.001	24
4	15	105	0.022	0.001	0.003	24
4	16	106	0.001	0.001	0.001	24
4	17	107	0.002	0.001	0.001	24
4	18	108	0.007	0.001	0.002	23
4	19	109	0.010	0.001	0.002	23
4	20	110	0.008	0.001	0.002	24
4	21	111	0.016	0.001	0.003	24
4	22	112	0.007	0.001	0.001	24
4	23	113	0.003	0.001	0.001	24
4	24	114	0.009	0.001	0.002	24
4	25	115	0.001	0.001	0.001	22
4	26	116	0.001	0.001	0.001	22
4	27	117	0.001	0.001	0.001	24
4	28	118	0.007	0.001	0.001	24
4	29	119	0.001	0.001	0.001	24
4	30	120	0.007	0.001	0.001	24
5	1	121	0.001	0.001	0.001	24
5	2	122	0.007	0.001	0.002	24
5	3	123	0.001	0.001	0.001	24
5	4	124	0.009	0.001	0.002	24
5	5	125	0.010	0.001	0.002	24
5	6	126	0.001	0.001	0.001	24
5	7	127	0.003	0.001	0.001	24
5	8	128	0.001	0.001	0.001	24
5	9	129	0.002	0.001	0.001	24
5	10	130	0.027	0.001	0.004	23
5	11	131	0.001	0.001	0.001	24
5	12	132	0.007	0.001	0.002	24
5	13	133	0.016	0.001	0.003	24
5	14	134	0.004	0.001	0.001	24
5	15	135	0.007	0.001	0.002	24
5	16	136	0.005	0.001	0.001	24
5	17	137	0.003	0.001	0.001	24
5	18	138	0.008	0.001	0.002	24

Sulfur Dioxide (SO_2) Daily Data in
parts per million (ppm) for FY90

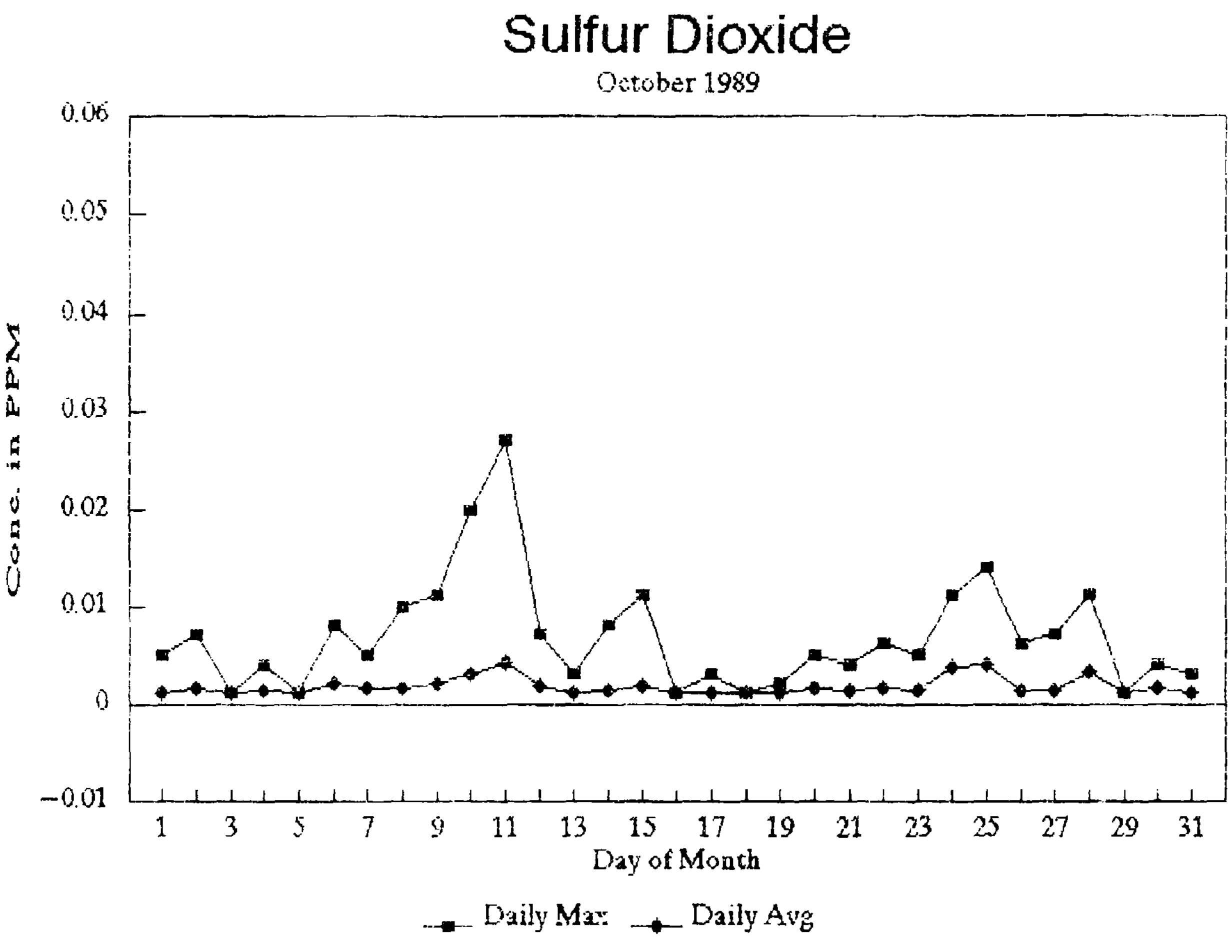
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
5	19	139	0.001	0.001	0.001	24
5	20	140	0.001	0.001	0.001	24
5	21	141	0.051	0.001	0.005	24
5	22	142	0.008	0.001	0.003	24
5	23	143	0.006	0.001	0.002	24
5	24	144	0.030	0.001	0.008	21
5	25	145	0.002	0.001	0.001	24
5	26	146	0.002	0.001	0.001	24
5	27	147	0.001	0.001	0.001	24
5	28	148	0.004	0.001	0.001	24
5	29	149	0.011	0.001	0.002	21
5	30	150	0.004	0.001	0.002	24
5	31	151	0.031	0.001	0.003	24
6	1	152	0.026	0.001	0.004	24
6	2	153	0.002	0.001	0.001	24
6	3	154	0.001	0.001	0.001	24
6	4	155	0.005	0.001	0.001	24
6	5	156	0.006	0.001	0.002	24
6	6	157	0.002	0.001	0.001	24
6	7	158	0.024	0.001	0.004	22
6	8	159	0.004	0.001	0.001	24
6	9	160	0.007	0.001	0.002	24
6	10	161	0.004	0.001	0.001	24
6	11	162	0.001	0.001	0.001	24
6	12	163	0.003	0.001	0.001	24
6	13	164	0.001	0.001	0.001	24
6	14	165	0.013	0.001	0.003	24
6	15	166	0.007	0.001	0.002	24
6	16	167	0.001	0.001	0.001	24
6	17	168	0.014	0.001	0.003	24
6	18	169	0.016	0.001	0.002	24
6	19	170	0.003	0.001	0.001	24
6	20	171	0.006	0.001	0.002	15
6	21	172	0.006	0.001	0.001	22
6	22	173	0.007	0.001	0.002	24
6	23	174	0.014	0.001	0.002	22
6	24	175	0.013	0.001	0.002	24
6	25	176	0.038	0.001	0.004	24
6	26	177	0.028	0.001	0.005	24
6	27	178	0.015	0.001	0.002	24
6	28	179	0.013	0.001	0.002	24
6	29	180	0.010	0.001	0.002	24
6	30	181	0.011	0.001	0.002	24
7	1	182	0.009	0.001	0.002	24
7	2	183	0.011	0.001	0.002	24
7	3	184	0.007	0.001	0.002	24

Sulfur Dioxide (SO_2) Daily Data in parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
7	4	185	0.001	0.001	0.001	24
7	5	186	0.013	0.001	0.002	22
7	6	187	0.009	0.001	0.003	22
7	7	188	0.010	0.001	0.002	24
7	8	189	0.001	0.001	0.001	24
7	9	190	0.001	0.001	0.001	24
7	10	191	0.004	0.001	0.001	24
7	11	192	0.003	0.001	0.001	24
7	12	193	0.001	0.001	0.001	24
7	13	194	0.001	0.001	0.001	24
7	14	195	0.004	0.001	0.001	24
7	15	196	0.005	0.001	0.002	24
7	16	197	0.017	0.001	0.003	24
7	17	198	0.012	0.001	0.002	24
7	18	199	0.006	0.001	0.002	24
7	19	200	0.001	0.001	0.001	24
7	20	201	0.001	0.001	0.001	22
7	21	202	0.001	0.001	0.001	24
7	22	203	0.001	0.001	0.001	24
7	23	204	0.007	0.001	0.001	24
7	24	205	0.018	0.001	0.004	24
7	25	206	0.010	0.001	0.002	22
7	26	207	0.017	0.001	0.002	24
7	27	208	0.004	0.001	0.001	24
7	28	209	0.011	0.001	0.002	24
7	29	210	0.002	0.001	0.001	24
7	30	211	0.001	0.001	0.001	24
7	31	212	0.004	0.001	0.001	24
8	1	213	0.014	0.001	0.002	24
8	2	214	0.006	0.001	0.002	22
8	3	215	0.003	0.001	0.001	22
8	4	216	0.009	0.001	0.002	11
8	5	217				0
8	6	218				0
8	7	219	0.001	0.001	0.001	11
8	8	220	0.024	0.001	0.004	24
8	9	221	0.008	0.001	0.002	19
8	10	222	0.015	0.001	0.003	24
8	11	223	0.003	0.001	0.001	24
8	12	224	0.005	0.001	0.002	24
8	13	225	0.015	0.001	0.004	24
8	14	226	0.008	0.001	0.002	24
8	15	227	0.013	0.001	0.002	24
8	16	228	0.006	0.001	0.002	20
8	17	229	0.015	0.001	0.003	24
8	18	230	0.008	0.001	0.002	24

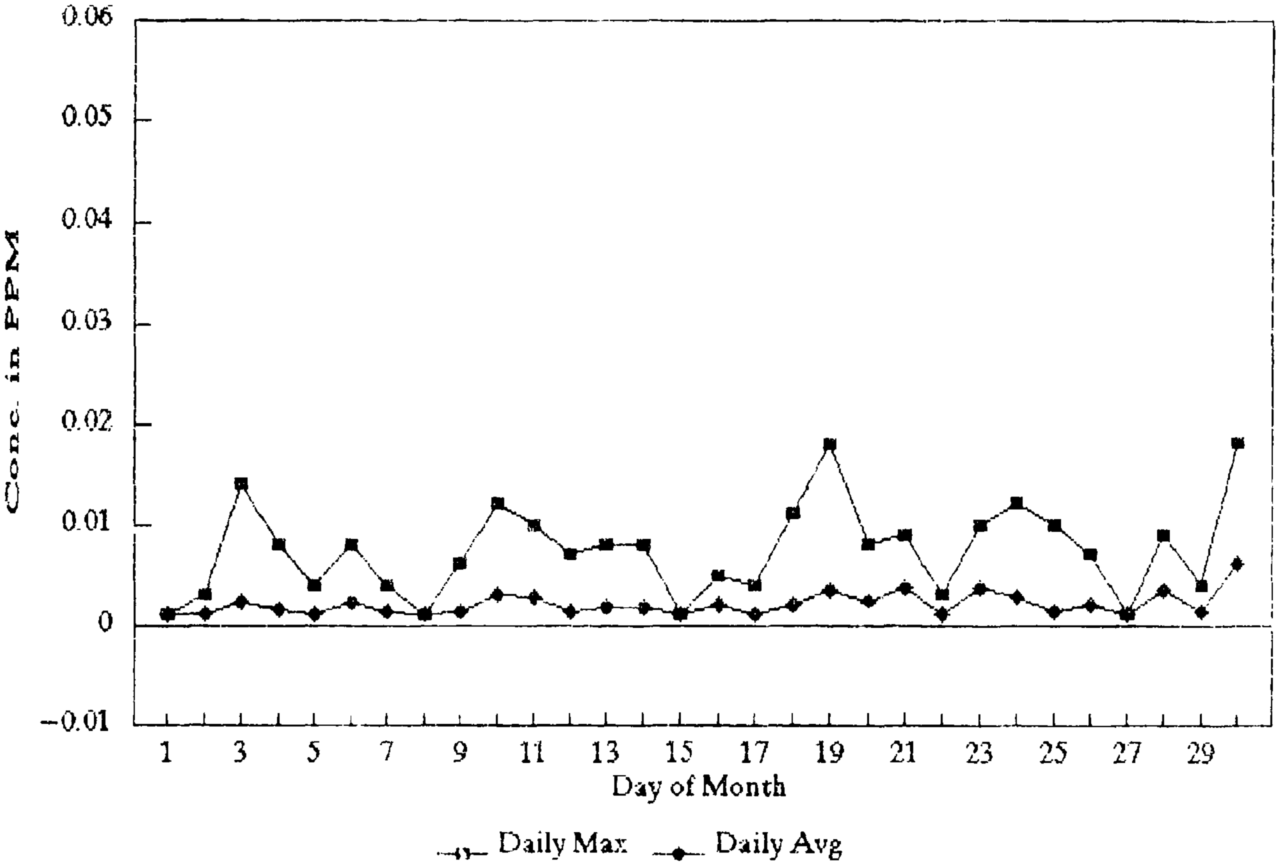
Sulfur Dioxide (SO2) Daily Data in
parts per million (ppm) for FY90

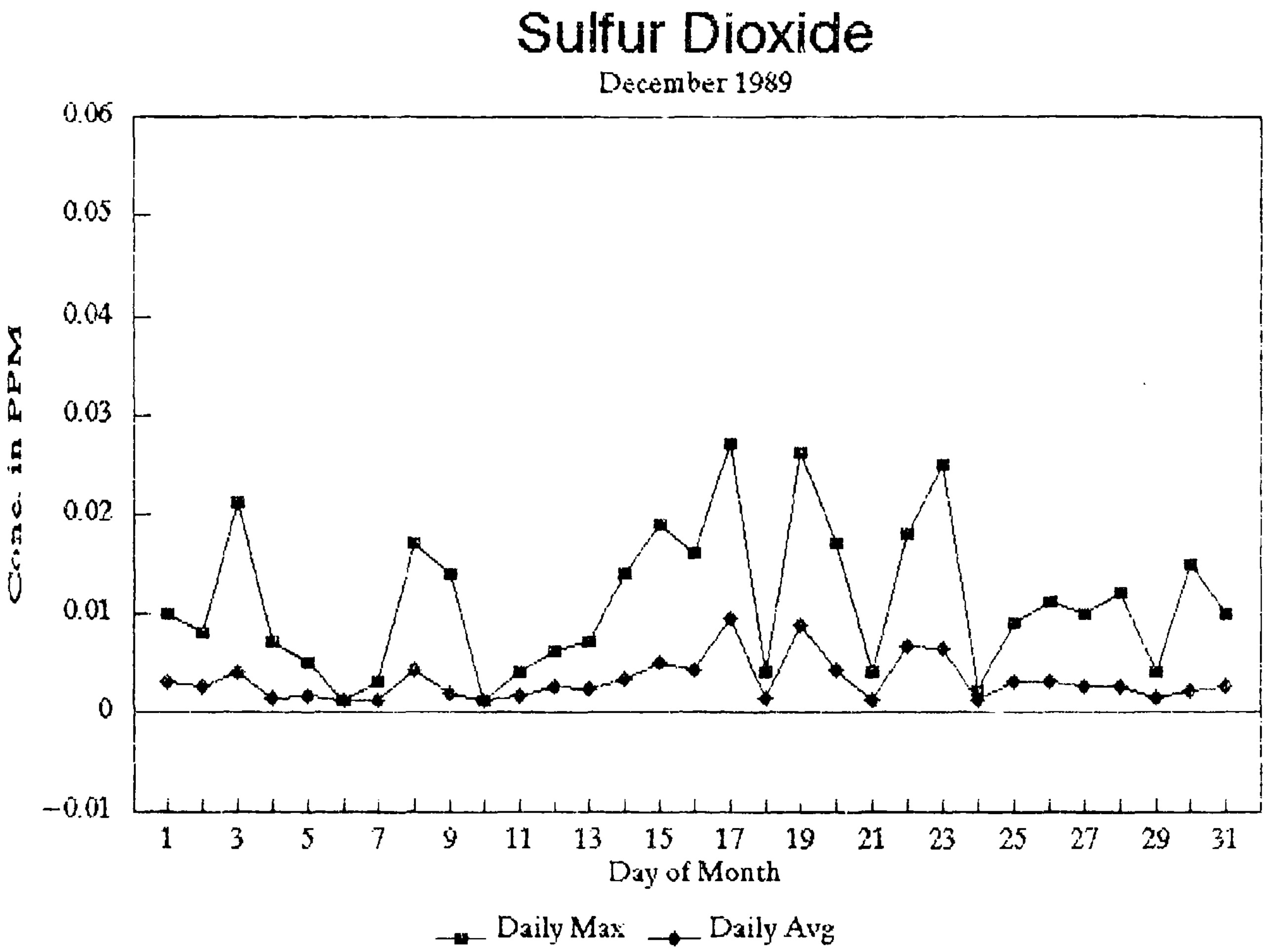
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
8	19	231	0.042	0.001	0.006	17
8	20	232	0.003	0.001	0.001	16
8	21	233	0.010	0.001	0.002	24
8	22	234	0.009	0.001	0.002	24
8	23	235	0.006	0.001	0.001	24
8	24	236	0.007	0.001	0.002	24
8	25	237	0.007	0.001	0.002	24
8	26	238	0.006	0.001	0.001	24
8	27	239	0.005	0.001	0.002	24
8	28	240	0.009	0.001	0.002	24
8	29	241	0.016	0.001	0.003	24
8	30	242	0.012	0.001	0.003	22
8	31	243	0.005	0.001	0.002	10
9	1	244				0
9	2	245				0
9	3	246				0
9	4	247				0
9	5	248				0
9	6	249				0
9	7	250				0
9	8	251				0
9	9	252				0
9	10	253	0.002	0.001	0.001	12
9	11	254	0.038	0.001	0.005	24
9	12	255	0.026	0.001	0.003	24
9	13	256	0.007	0.001	0.002	22
9	14	257	0.009	0.001	0.002	24
9	15	258	0.010	0.001	0.002	23
9	16	259	0.012	0.001	0.002	24
9	17	260	0.001	0.001	0.001	24
9	18	261	0.003	0.001	0.001	24
9	19	262	0.008	0.001	0.002	24
9	20	263	0.009	0.001	0.002	24
9	21	264	0.011	0.001	0.002	24
9	22	265	0.007	0.001	0.002	24
9	23	266	0.008	0.001	0.002	24
9	24	267	0.018	0.001	0.002	24
9	25	268	0.004	0.001	0.001	24
9	26	269	0.008	0.001	0.002	24
9	27	270	0.018	0.001	0.004	23
9	28	271	0.003	0.001	0.001	24
9	29	272	0.001	0.001	0.001	24
9	30	273	0.010	0.001	0.002	24

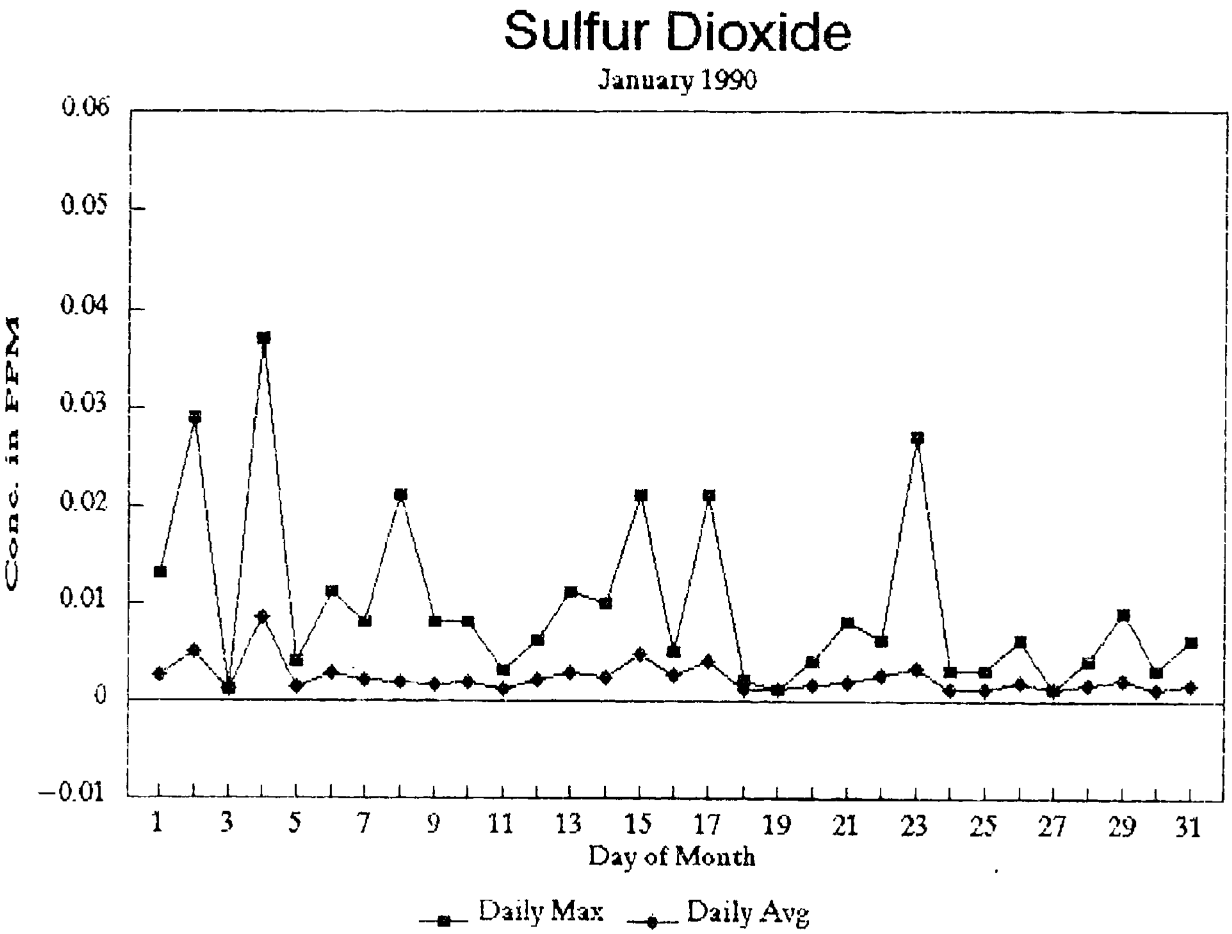

Sulfur Dioxide
October 1989
0.06
0.05
0.04
0.03
0.02
0.01
0
−0.01
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

Sulfur Dioxide

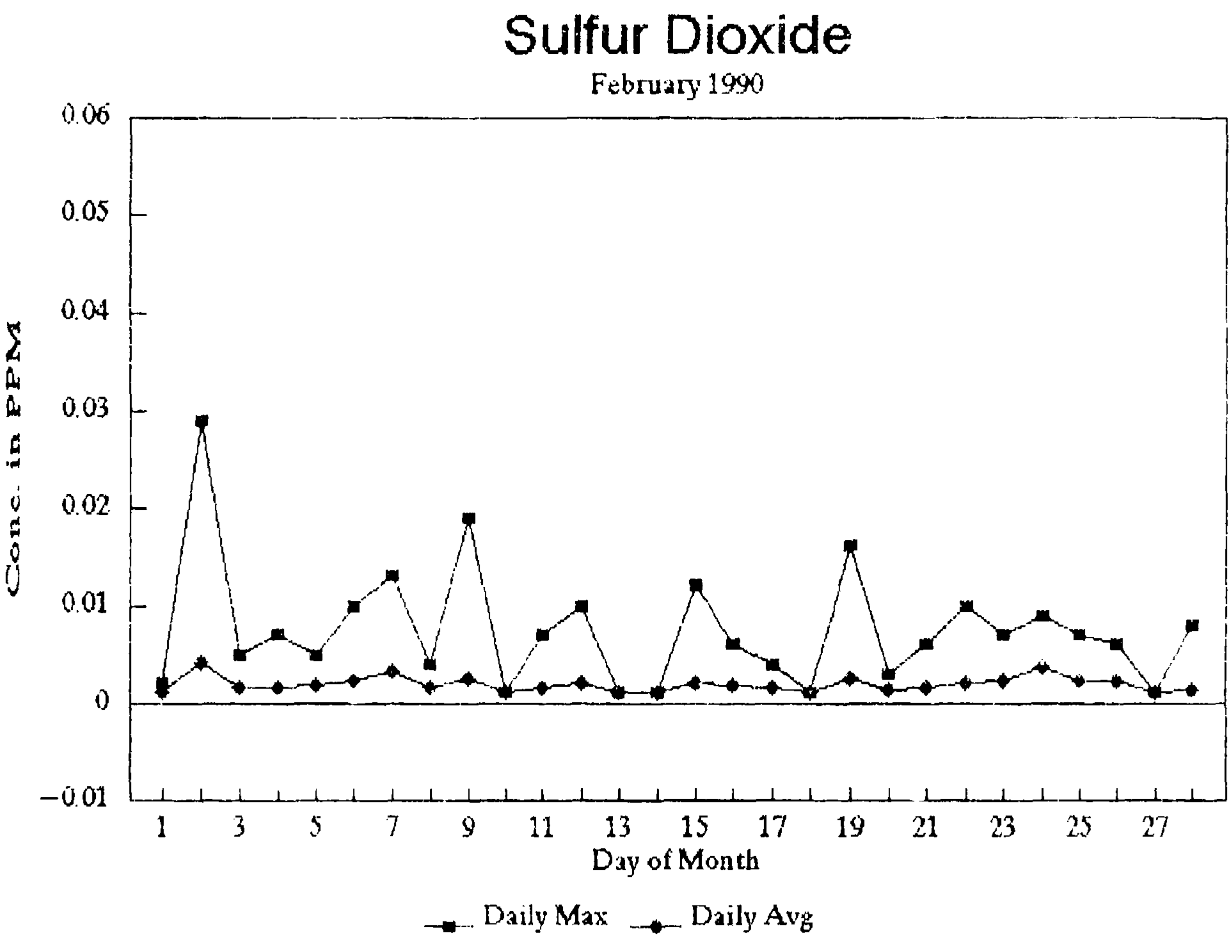
November 1989




Sulfur Dioxide
December 1989
Conc. in PPM
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

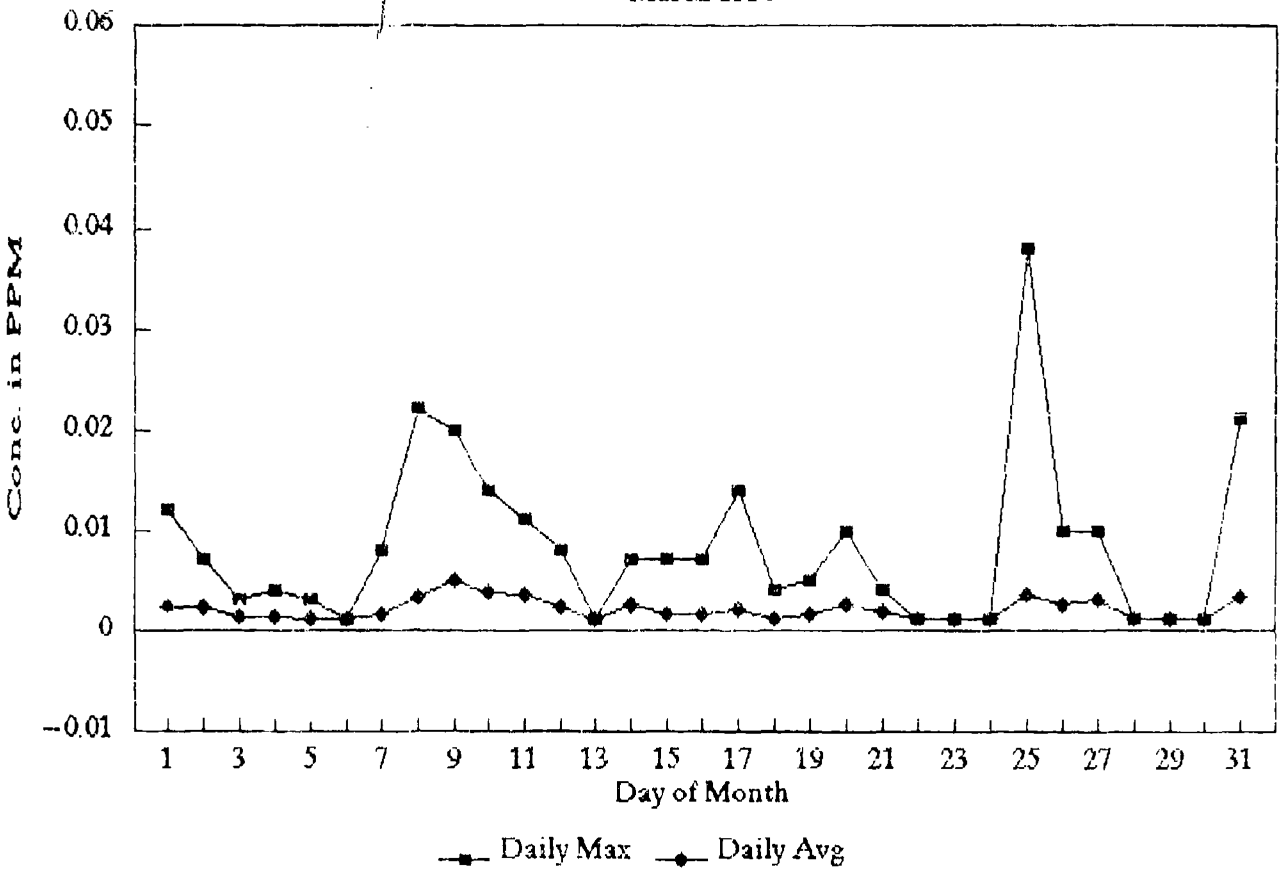


Sulfur Dioxide
January 1990
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Sulfur Dioxide
February 1990
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
Day of Month
Daily Max
Daily Avg

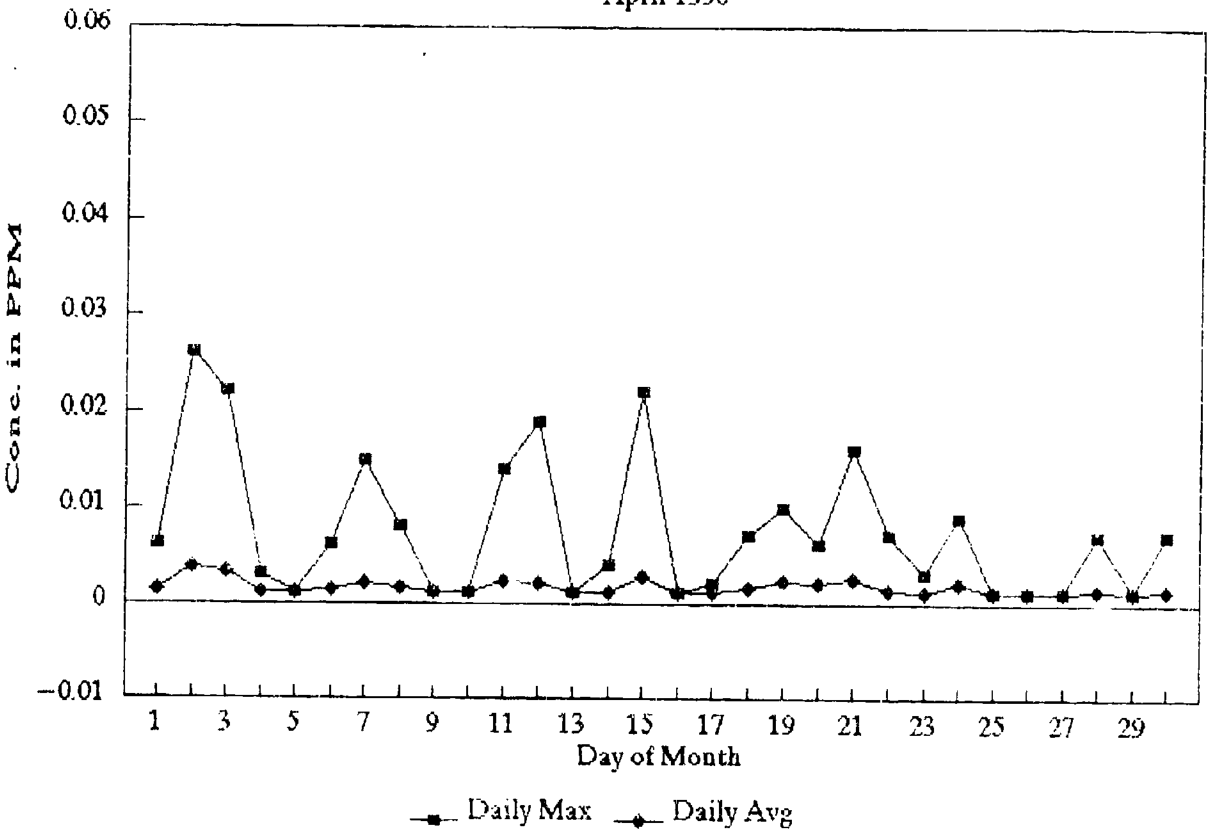
Sulfur Dioxide

March 1990



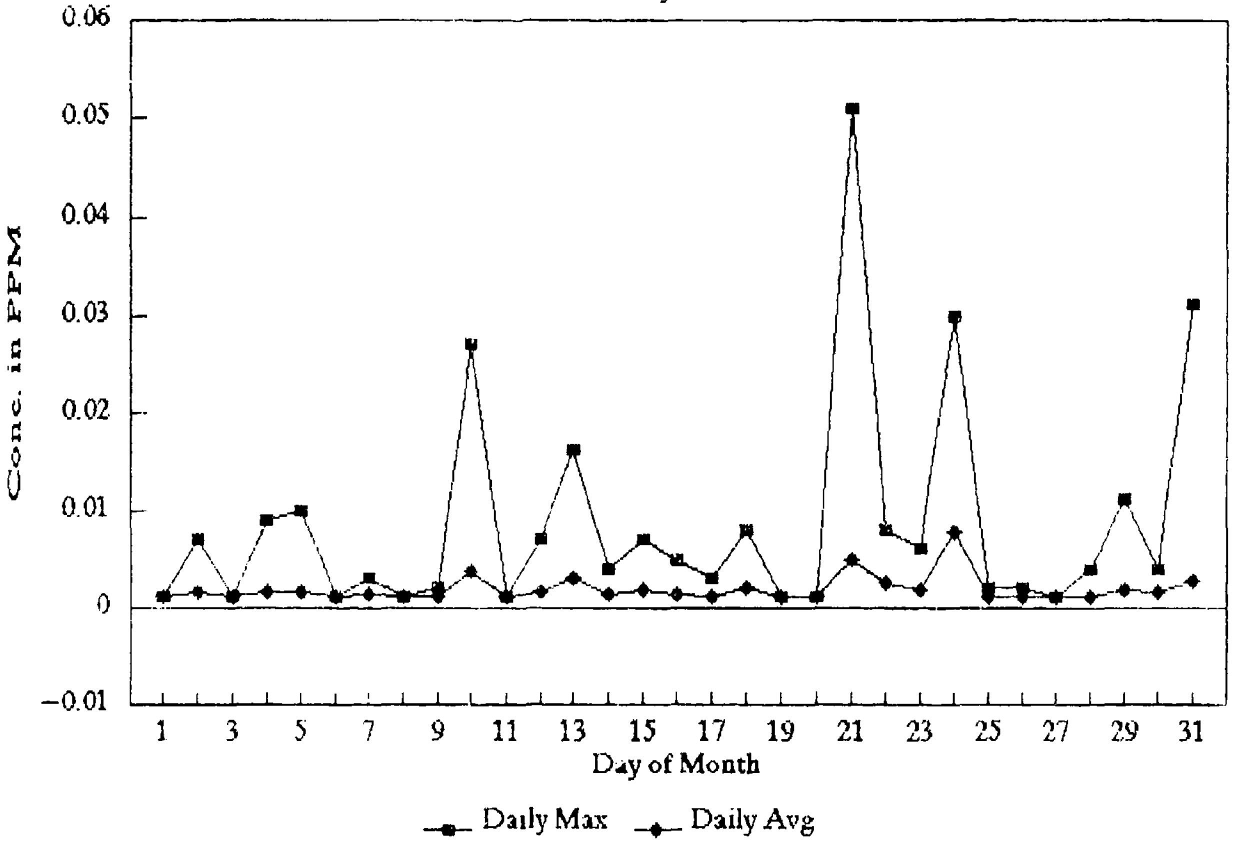
Sulfur Dioxide

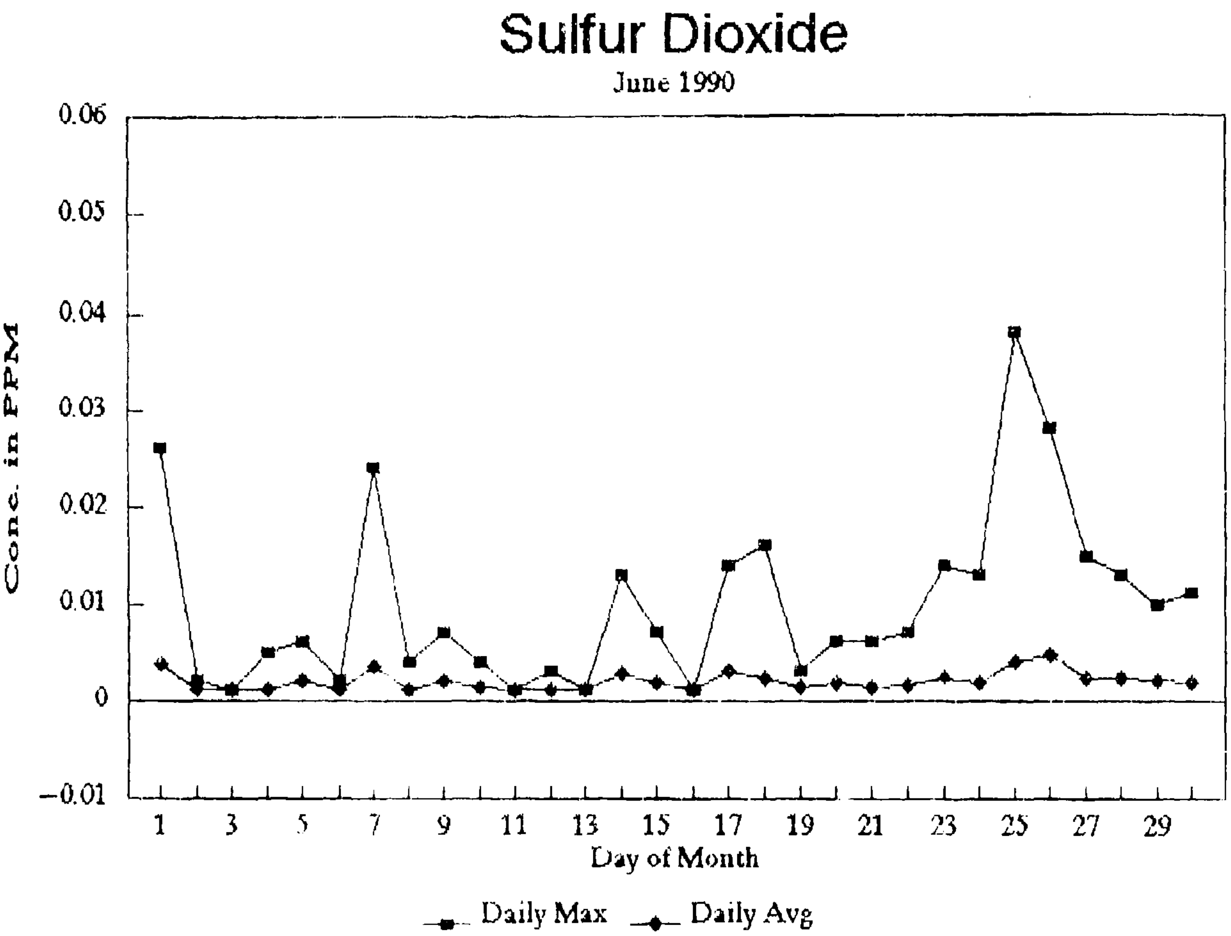
April 1990



Sulfur Dioxide

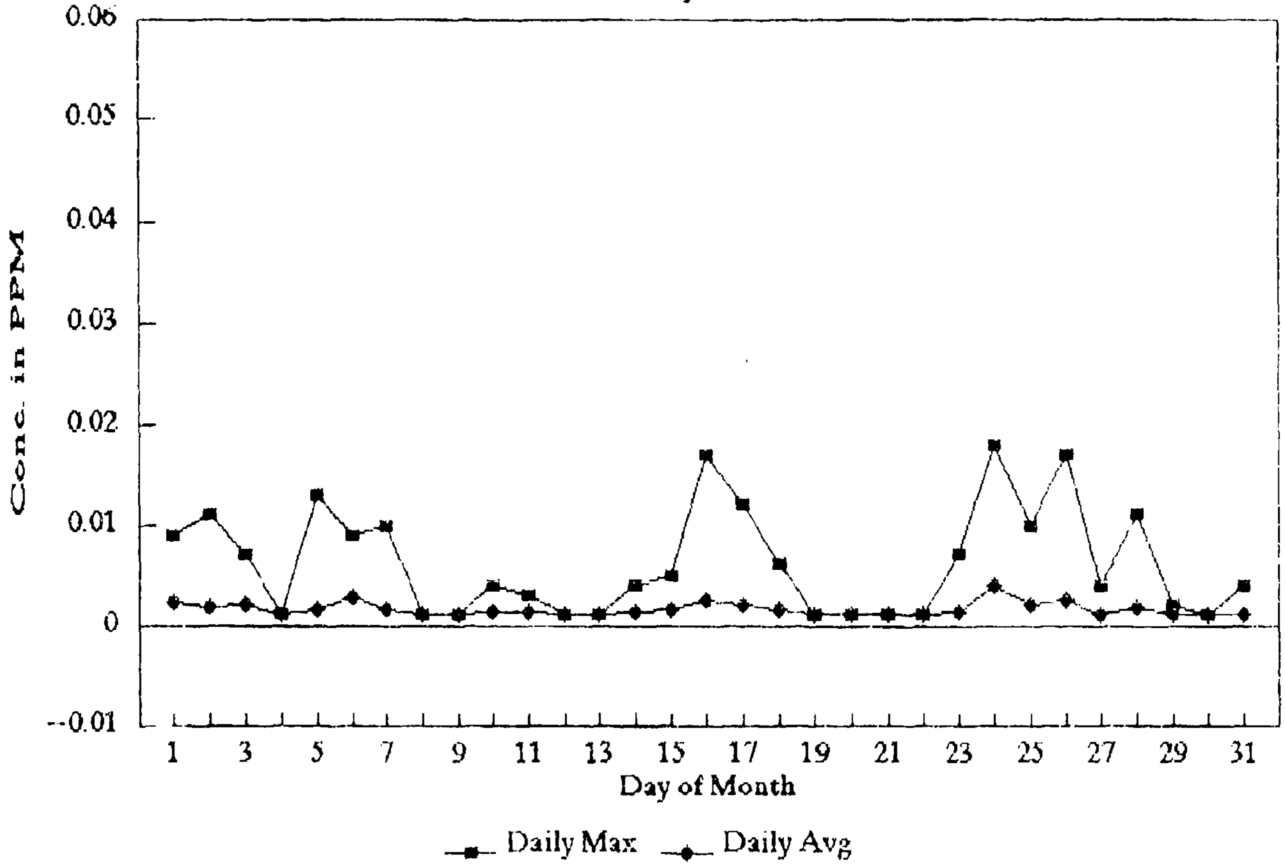
May 1990

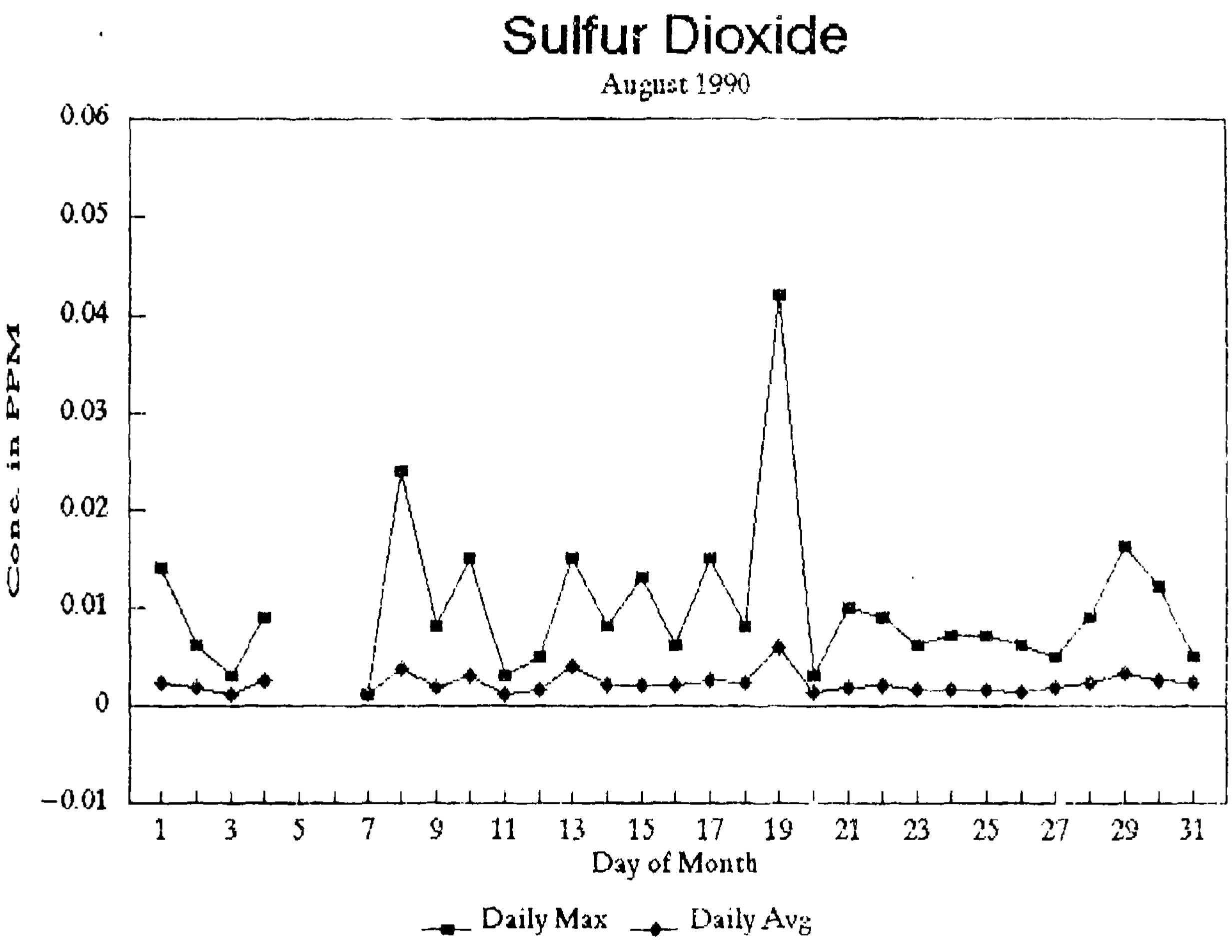



Sulfur Dioxide
June 1990
Conc. in PPM
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

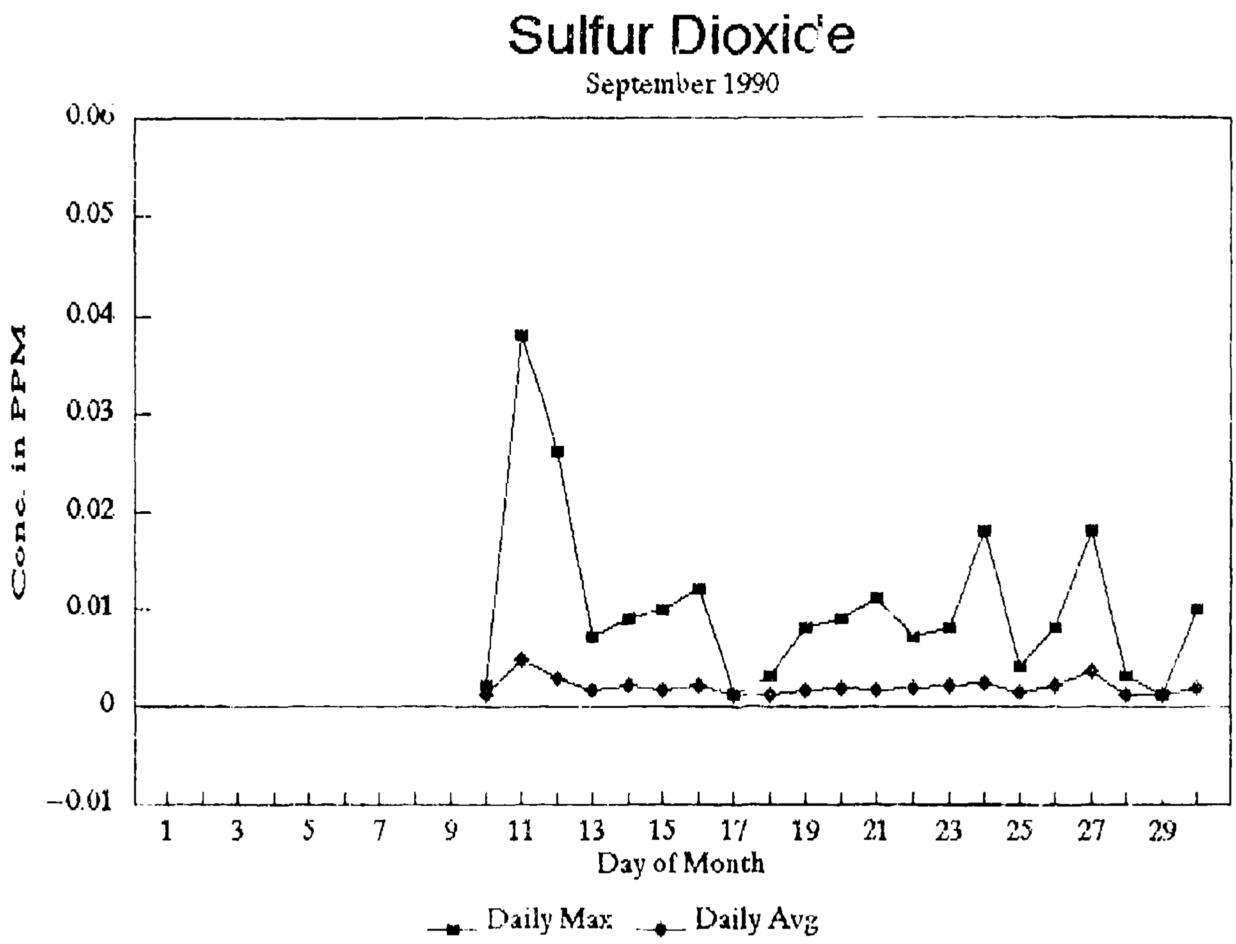
Sulfur Dioxide

July 1990





Sulfur Dioxide
August 1990
Conc. in PPM
0.06
0.05
0.04
0.03
0.02
0.01
0
−0.01
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Sulfur Dioxide
September 1990
0.06
0.05
0.04
0.03
0.02
0.01
0
-0.01
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

14 Nitric Oxide (NO)

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
10	1	274	0.001	0.001	0.001	24
10	2	275	0.026	0.001	0.006	24
10	3	276	0.009	0.001	0.004	24
10	4	277	0.028	0.004	0.011	24
10	5	278	0.044	0.002	0.010	24
10	6	279	0.087	0.003	0.015	24
10	7	280	0.049	0.001	0.012	24
10	8	281	0.027	0.001	0.006	24
10	9	282	0.094	0.001	0.013	24
10	10	283	0.045	0.001	0.011	24
10	11	284	0.048	0.001	0.008	24
10	12	285	0.046	0.001	0.008	24
10	13	286	0.053	0.001	0.010	20
10	14	287	0.022	0.001	0.005	24
10	15	288	0.014	0.001	0.003	24
10	16	289	0.005	0.001	0.002	24
10	17	290	0.015	0.001	0.008	24
10	18	291	0.106	0.004	0.024	24
10	19	292	0.075	0.001	0.022	24
10	20	293	0.104	0.001	0.024	24
10	21	294	0.072	0.001	0.012	24
10	22	295	0.024	0.001	0.008	24
10	23	296	0.048	0.001	0.012	24
10	24	297	0.106	0.001	0.021	20
10	25	298	0.134	0.001	0.027	24
10	26	299	0.007	0.001	0.002	24
10	27	300	0.084	0.001	0.010	24
10	28	301	0.065	0.001	0.020	16
10	29	302	0.010	0.001	0.005	24
10	30	303	0.075	0.001	0.018	24
10	31	304	0.056	0.001	0.010	24
11	1	305	0.056	0.001	0.010	24
11	2	306	0.049	0.001	0.013	24
11	3	307	0.083	0.002	0.015	24
11	4	308	0.040	0.001	0.010	24
11	5	309	0.037	0.001	0.007	24
11	6	310	0.099	0.001	0.019	24
11	7	311	0.017	0.001	0.004	24
11	8	312	0.012	0.001	0.004	20
11	9	313	0.019	0.001	0.005	24
11	10	314	0.111	0.001	0.024	24
11	11	315	0.064	0.001	0.013	24
11	12	316	0.077	0.001	0.009	24
11	13	317	0.102	0.001	0.013	24
11	14	318	0.078	0.001	0.016	24
11	15	319	0.002	0.001	0.001	24
11	16	320	0.070	0.001	0.016	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
11	17	321	0.066	0.001	0.014	24
11	18	322	0.071	0.001	0.011	24
11	19	323	0.136	0.001	0.016	24
11	20	324	0.133	0.001	0.039	21
11	21	325	0.204	0.001	0.045	24
11	22	326	0.126	0.001	0.011	24
11	23	327	0.149	0.001	0.043	24
11	24	328	0.022	0.001	0.006	24
11	25	329	0.023	0.001	0.006	24
11	26	330	0.081	0.001	0.017	24
11	27	331	0.029	0.001	0.004	24
11	28	332	0.116	0.002	0.031	24
11	29	333	0.106	0.001	0.016	24
11	30	334	0.247	0.001	0.051	24
12	1	335	0.290	0.001	0.044	24
12	2	336	0.110	0.001	0.021	24
12	3	337	0.093	0.001	0.029	24
12	4	338	0.080	0.001	0.009	20
12	5	339	0.053	0.001	0.009	24
12	6	340	0.034	0.001	0.009	24
12	7	341	0.115	0.001	0.016	24
12	8	342	0.162	0.001	0.046	24
12	9	343	0.027	0.001	0.007	22
12	10	344	0.009	0.001	0.005	24
12	11	345	0.070	0.001	0.015	24
12	12	346	0.074	0.001	0.008	24
12	13	347	0.014	0.001	0.005	24
12	14	348	0.149	0.001	0.017	24
12	15	349	0.068	0.001	0.014	24
12	16	350	0.106	0.001	0.019	20
12	17	351	0.086	0.001	0.028	24
12	18	352	0.121	0.001	0.011	24
12	19	353	0.163	0.006	0.072	24
12	20	354	0.090	0.001	0.014	23
12	21	355	0.001	0.001	0.001	24
12	22	356	0.329	0.001	0.073	22
12	23	357	0.518	0.006	0.102	24
12	24	358	0.029	0.001	0.011	24
12	25	359	0.085	0.003	0.016	24
12	26	360	0.053	0.002	0.020	24
12	27	361	0.178	0.001	0.033	24
12	28	362	0.106	0.001	0.021	24
12	29	363	0.151	0.001	0.020	24
12	30	364	0.076	0.003	0.018	24
12	31	365	0.027	0.001	0.009	24
1	1	1	0.116	0.001	0.017	24
1	2	2	0.183	0.001	0.039	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
1	3	3	0.014	0.001	0.004	24
1	4	4	0.132	0.001	0.044	24
1	5	5	0.085	0.001	0.012	24
1	6	6	0.164	0.001	0.021	24
1	7	7	0.034	0.001	0.008	24
1	8	8	0.026	0.001	0.006	24
1	9	9	0.025	0.001	0.006	24
1	10	10	0.139	0.001	0.015	24
1	11	11	0.009	0.001	0.003	24
1	12	12	0.142	0.001	0.036	24
1	13	13	0.119	0.001	0.017	24
1	14	14	0.099	0.008	0.021	24
1	15	15	0.121	0.003	0.034	24
1	16	16	0.082	0.003	0.023	24
1	17	17	0.061	0.001	0.014	24
1	18	18	0.040	0.001	0.006	24
1	19	19	0.015	0.004	0.010	13
1	20	20	0.065	0.001	0.018	24
1	21	21	0.100	0.001	0.019	24
1	22	22	0.053	0.003	0.020	23
1	23	23	0.033	0.001	0.005	24
1	24	24	0.010	0.001	0.003	22
1	25	25	0.004	0.001	0.002	24
1	26	26	0.028	0.001	0.007	24
1	27	27	0.004	0.001	0.001	24
1	28	28	0.008	0.001	0.001	24
1	29	29	0.006	0.001	0.002	24
1	30	30	0.025	0.001	0.006	24
1	31	31	0.049	0.001	0.012	24
2	1	32	0.024	0.001	0.005	20
2	2	33	0.076	0.001	0.019	24
2	3	34	0.043	0.001	0.009	10
2	4	35	ERR	ERR	ERR	0
2	5	36	0.040	0.001	0.004	13
2	6	37	0.169	0.001	0.037	24
2	7	38	0.152	0.001	0.023	24
2	8	39	0.008	0.001	0.003	24
2	9	40	0.023	0.001	0.004	24
2	10	41	0.003	0.001	0.001	24
2	11	42	0.007	0.001	0.003	24
2	12	43	0.161	0.001	0.016	24
2	13	44	0.001	0.001	0.001	24
2	14	45	0.002	0.001	0.001	24
2	15	46	0.055	0.001	0.013	22
2	16	47	0.076	0.001	0.016	24
2	17	48	0.008	0.001	0.003	24
2	18	49	0.011	0.001	0.005	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
2	19	50	0.049	0.001	0.012	24
2	20	51	0.040	0.001	0.010	24
2	21	52	0.119	0.001	0.026	24
2	22	53	0.081	0.001	0.018	24
2	23	54	0.065	0.001	0.012	24
2	24	55	0.138	0.006	0.028	24
2	25	56	0.142	0.001	0.030	24
2	26	57	0.118	0.004	0.027	24
2	27	58	0.022	0.001	0.006	24
2	28	59	0.019	0.001	0.009	24
3	1	60	0.082	0.001	0.028	21
3	2	61	0.100	0.001	0.022	24
3	3	62	0.022	0.001	0.008	24
3	4	63	0.020	0.001	0.007	24
3	5	64	0.023	0.001	0.012	22
3	6	65	0.006	0.001	0.003	24
3	7	66	0.028	0.001	0.007	24
3	8	67	0.066	0.003	0.022	24
3	9	68	0.186	0.001	0.039	24
3	10	69	0.155	0.001	0.031	24
3	11	70	0.061	0.001	0.016	24
3	12	71	0.023	0.001	0.003	24
3	13	72	0.003	0.001	0.001	24
3	14	73	0.032	0.001	0.013	24
3	15	74	0.026	0.001	0.006	22
3	16	75	0.004	0.001	0.001	24
3	17	76	0.014	0.001	0.003	24
3	18	77	0.003	0.001	0.002	24
3	19	78	0.078	0.001	0.015	24
3	20	79	0.031	0.001	0.007	24
3	21	80	0.024	0.003	0.008	24
3	22	81	0.014	0.001	0.004	24
3	23	82	0.002	0.001	0.001	24
3	24	83	0.002	0.001	0.001	24
3	25	84	0.040	0.001	0.005	24
3	26	85	0.019	0.001	0.006	24
3	27	86	0.063	0.001	0.022	24
3	28	87	0.004	0.001	0.002	24
3	29	88	0.006	0.004	0.005	8
3	30	89	0.011	0.008	0.010	3
3	31	90	0.083	0.001	0.016	24
4	1	91	0.006	0.001	0.002	24
4	2	92	0.057	0.001	0.008	24
4	3	93	0.044	0.001	0.006	22
4	4	94	0.016	0.001	0.002	24
4	5	95	0.001	0.001	0.001	24
4	6	96	0.013	0.001	0.003	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
4	7	97	0.056	0.001	0.006	24
4	8	98	0.008	0.001	0.002	24
4	9	99	0.019	0.001	0.003	24
4	10	100	0.015	0.001	0.002	24
4	11	101	0.014	0.001	0.002	21
4	12	102	0.097	0.001	0.012	24
4	13	103	0.001	0.001	0.001	24
4	14	104	0.031	0.001	0.005	24
4	15	105	0.018	0.001	0.003	24
4	16	106	0.013	0.001	0.002	24
4	17	107	0.007	0.001	0.002	24
4	18	108	0.010	0.001	0.002	24
4	19	109	0.040	0.001	0.005	24
4	20	110	0.031	0.001	0.004	24
4	21	111	0.013	0.001	0.002	24
4	22	112	0.003	0.001	0.001	24
4	23	113	0.009	0.001	0.002	24
4	24	114	0.020	0.001	0.005	24
4	25	115	0.030	0.001	0.007	21
4	26	116	0.016	0.001	0.003	22
4	27	117	0.009	0.001	0.002	24
4	28	118	0.006	0.001	0.002	24
4	29	119	0.001	0.001	0.001	24
4	30	120	0.005	0.001	0.002	24
5	1	121	0.003	0.001	0.001	24
5	2	122	0.089	0.001	0.017	20
5	3	123	0.001	0.001	0.001	24
5	4	124	0.042	0.001	0.004	24
5	5	125	0.030	0.001	0.003	24
5	6	126	0.003	0.001	0.001	24
5	7	127	0.013	0.001	0.003	24
5	8	128	0.001	0.001	0.001	24
5	9	129	0.001	0.001	0.001	24
5	10	130	0.046	0.001	0 006	22
5	11	131	0.005	0.001	0.001	24
5	12	132	0.009	0.001	0.003	24
5	13	133	0.016	0.001	0.006	24
5	14	134	0.005	0.001	0.001	24
5	15	135	0.024	0.001	0.003	24
5	16	136	0.003	0.001	0.001	24
5	17	137	0.005	0.001	0.001	24
5	18	138	0.027	0.001	0.004	24
5	19	139	0.002	0.001	0.001	24
5	20	140	0.001	0.001	0.001	24
5	21	141	0.055	0.001	0.007	24
5	22	142	0.041	0.001	0.005	24
5	23	143	0.018	0.001	0.004	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

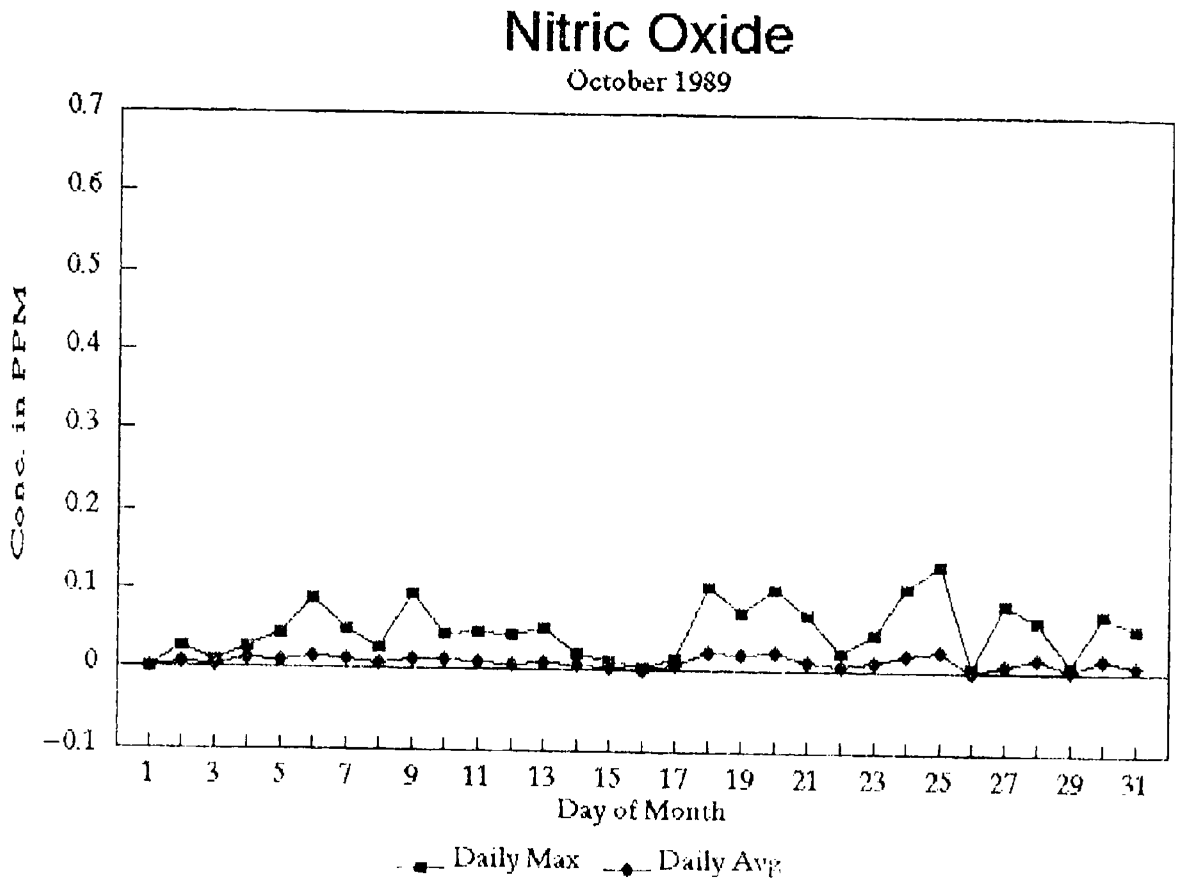
Calendar Month	Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
5	24	144	0.067	0.001	0.012	20
5	25	145	0.001	0.001	0.001	24
5	26	146	0.006	0.001	0.001	24
5	27	147	0.002	0.001	0.001	24
5	28	148	0.005	0.001	0.001	24
5	29	149	0.011	0.001	0.002	24
5	30	150	0.055	0.001	0.005	24
5	31	151	0.042	0.001	0.006	24
6	1	152	0.095	0.001	0.007	24
6	2	153	0.001	0.001	0.001	24
6	3	154	0.001	0.001	0.001	24
6	4	155	0.018	0.001	0.003	24
6	5	156	0.020	0.001	0.003	24
6	6	157	0.007	0.001	0.002	24
6	7	158	0.014	0.001	0.003	22
6	8	159	0.006	0.001	0.002	24
6	9	160	0.005	0.001	0.002	24
6	10	161	0.004	0.001	0.002	24
6	11	162	0.005	0.001	0.002	24
6	12	163	0.006	0.002	0.003	24
6	13	164	0.003	0.001	0.002	23
6	14	165	0.014	0.001	0.003	24
6	15	166	0.010	0.001	0.003	24
6	16	167	0.004	0.001	0.002	24
6	17	168	0.012	0.001	0.003	24
6	18	169	0.015	0.002	0.006	9
6	19	170	0.003	0.001	0.002	12
6	20	171	0.020	0.001	0.004	24
6	21	172	0.006	0.001	0.002	21
6	22	173	0.023	0.001	0.003	24
6	23	174	0.015	0.001	0.004	22
6	24	175	0.011	0.001	0.003	24
6	25	176	0.029	0.001	0.005	24
6	26	177	0.046	0.001	0.008	24
6	27	178	0.013	0.001	0.003	24
6	28	179	0.019	0.001	0.003	24
6	29	180	0.043	0.001	0.006	24
6	30	181	0.019	0.001	0.003	24
7	1	182	0.008	0.001	0.002	24
7	2	183	0.016	0.001	0.004	24
7	3	184	0.029	0.001	0.005	24
7	4	185	0.007	0.001	0.003	24
7	5	186	0.044	0.001	0.006	21
7	6	187	0.009	0.001	0.004	24
7	7	188	0.013	0.001	0.003	24
7	8	189	0.006	0.003	0.004	24
7	9	190	0.005	0.001	0.003	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

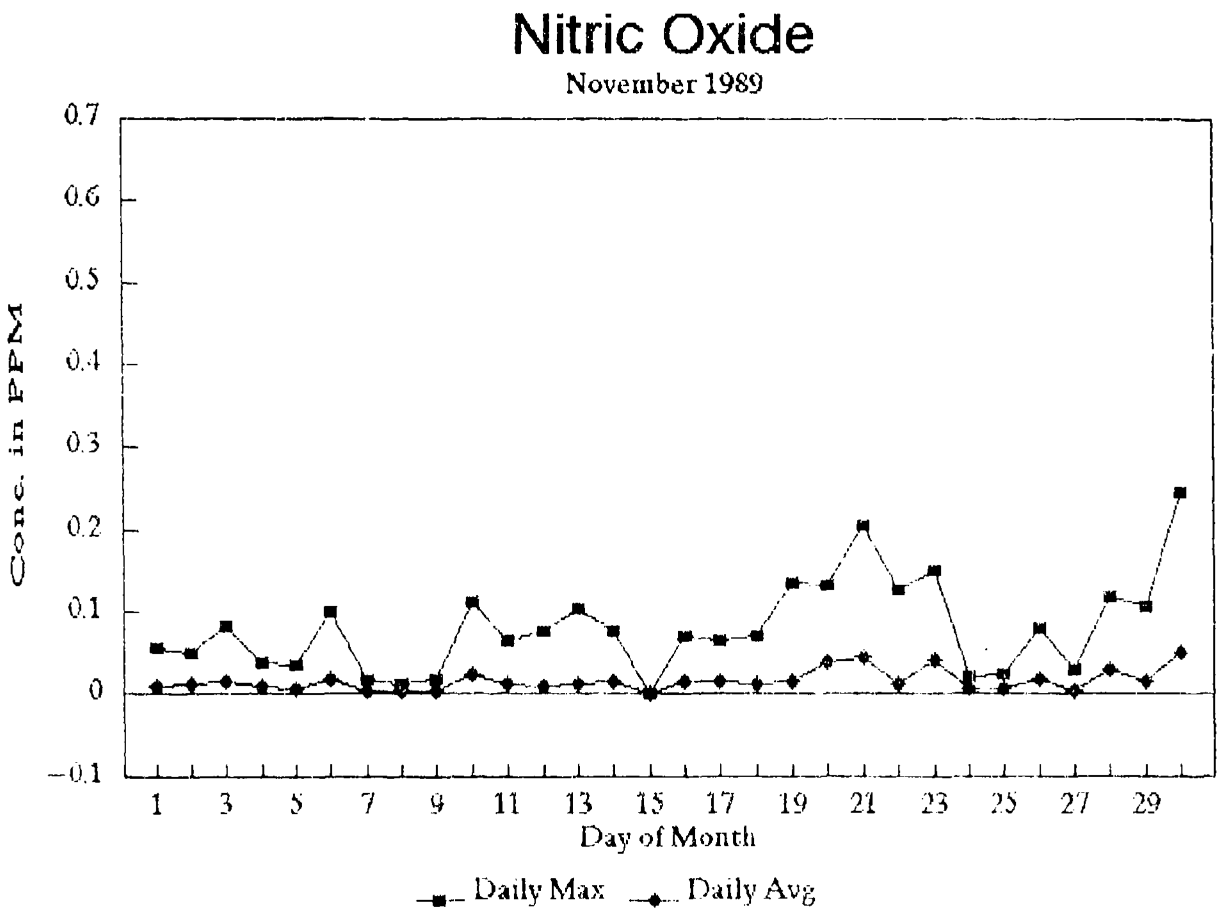
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
7	10	191	0.063	0.001	0.016	24
7	11	192	0.022	0.001	0.006	24
7	12	193	0.008	0.002	0.003	24
7	13	194	0.009	0.001	0.004	24
7	14	195	0.007	0.002	0.004	24
7	15	196	0.010	0.001	0.004	24
7	16	197	0.032	0.001	0.005	24
7	17	198	0.034	0.001	0.006	24
7	18	199	0.014	0.001	0.004	24
7	19	200	0.004	0.002	0.003	24
7	20	201	0.006	0.001	0.003	21
7	21	202	0.001	0.001	0.001	24
7	22	203	0.001	0.001	0.001	24
7	23	204	0.019	0.001	0.004	24
7	24	205	0.068	0.001	0.011	24
7	25	206	0.026	0.001	0.00[illegible]	[illegible]
7	26	207	0.020	0.001	0.005	21
7	27	208	0.012	0.002	0.004	[illegible]
7	28	209	0.010	0.002	0.004	[illegible]
7	29	210	0.009	0.003	0.004	24
7	30	211	0.009	0.003	0.004	[illegible]
7	31	212	0.018	0.002	0.004	24
8	1	213	0.036	0.002	0.007	[illegible]
8	2	214	0.008	0.001	0.004	[illegible]
8	3	215	0.029	0.002	0.005	[illegible]
8	4	216	0.017	0.001	0.005	24
8	5	217	0.005	0.002	0.003	24
8	6	218	0.005	0.002	0.003	24
8	7	219	0.031	0.001	0.005	24
8	8	220	0.040	0.001	0.008	24
8	9	221	0.040	0.001	0.006	24
8	10	222	0.034	0.001	0.008	24
8	11	223	0.006	0.002	0.003	24
8	12	224	0.008	0.003	0.004	24
8	13	225	0.020	0.002	0.006	24
8	14	226	0.033	0.002	0.006	[illegible]
8	15	227	0.013	0.003	0.005	24
8	16	228	0.032	0.001	0.008	20
8	17	229	0.027	0.002	0.007	24
8	18	230	0.038	0.002	0.012	24
8	19	231	0.043	0.002	0.008	17
8	20	232	0.036	0.003	0.008	16
8	21	233	0.046	0.002	0.010	24
8	22	234	0.047	0.002	0.009	24
8	23	235	0.043	0.001	0.007	24
8	24	236	0.023	0.002	0.006	24
8	25	237	0.016	0.002	0.005	24

Nitric Oxide (NO) Daily Data in
parts per million (ppm) for FY90

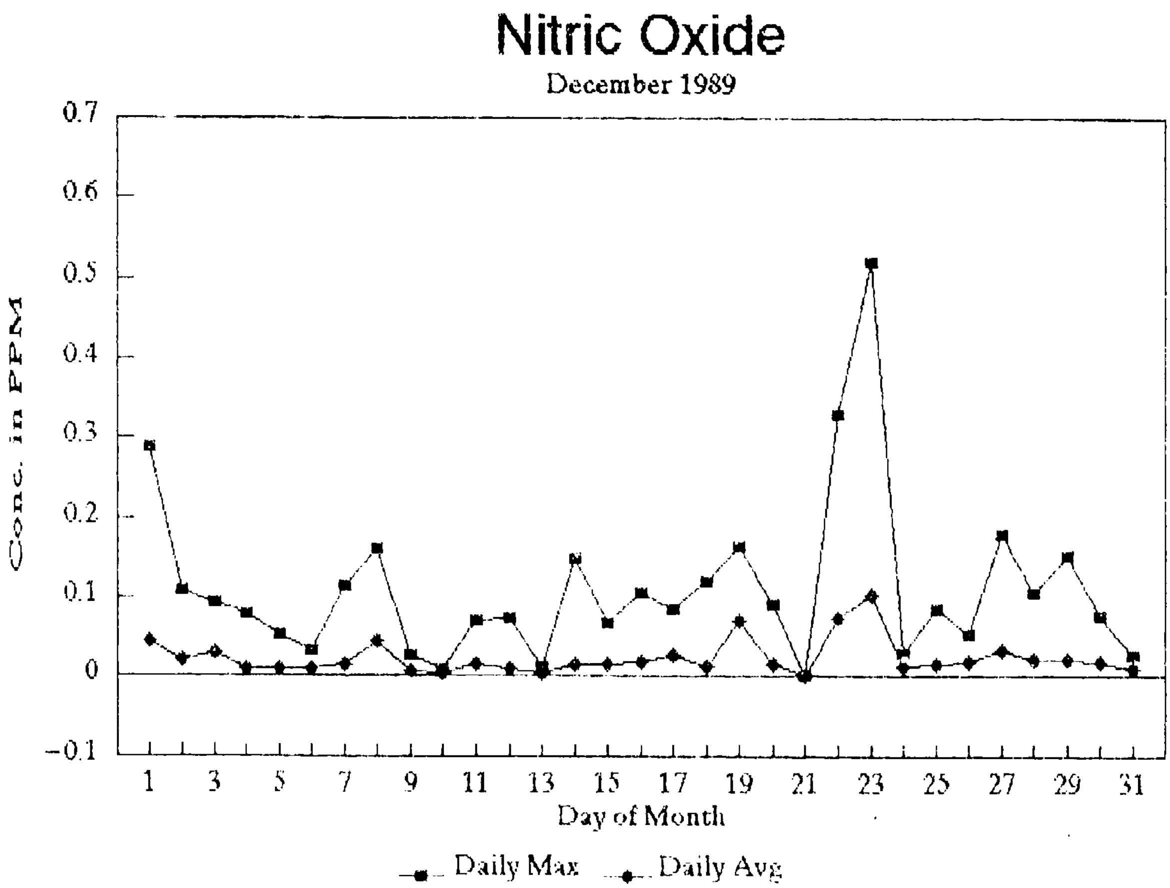
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
8	26	238	0.008	0.001	0.004	24
8	27	239	0.024	0.001	0.005	24
8	28	240	0.025	0.001	0.005	24
8	29	241	0.032	0.001	0.007	24
8	30	242	0.027	0.002	0.004	22
8	31	243	0.027	0.002	0.006	24
9	1	244	0.006	0.003	0.004	24
9	2	245	0.006	0.002	0.004	24
9	3	246	0.007	0.001	0.003	24
9	4	247	0.031	0.003	0.005	24
9	5	248	0.046	0.001	0.006	24
9	6	249	0.060	0.002	0.010	24
9	7	250	0.028	0.003	0.008	24
9	8	251	0.015	0.002	0.005	24
9	9	252	0.020	0.002	0.005	24
9	10	253	0.030	0.001	0.007	24
9	11	254	0.060	0.001	0.009	24
9	12	255	0.074	0.001	0.008	24
9	13	256	0.026	0.001	0.004	22
9	14	257	0.031	0.003	0.010	10
9	15	258	0.003	0.001	0.002	11
9	16	259	0.008	0.001	0.003	24
9	17	260	0.035	0.001	0.006	24
9	18	261	0.022	0.001	0.005	24
9	19	262	0.060	0.001	0.011	24
9	20	263	0.039	0.002	0.007	24
9	21	264	0.070	0.002	0.007	24
9	22	265	0.059	0.001	0.009	24
9	23	266	0.068	0.001	0.006	24
9	24	267	0.048	0.001	0.008	24
9	25	268	0.029	0.001	0.006	24
9	26	269	0.057	0.001	0.009	24
9	27	270	0.093	0.001	0.017	22
9	28	271	0.011	0.001	0.004	24
9	29	272	0.003	0.001	0.002	24
9	30	273	0.051	0.001	0.018	24



Nitric Oxide
October 1989
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

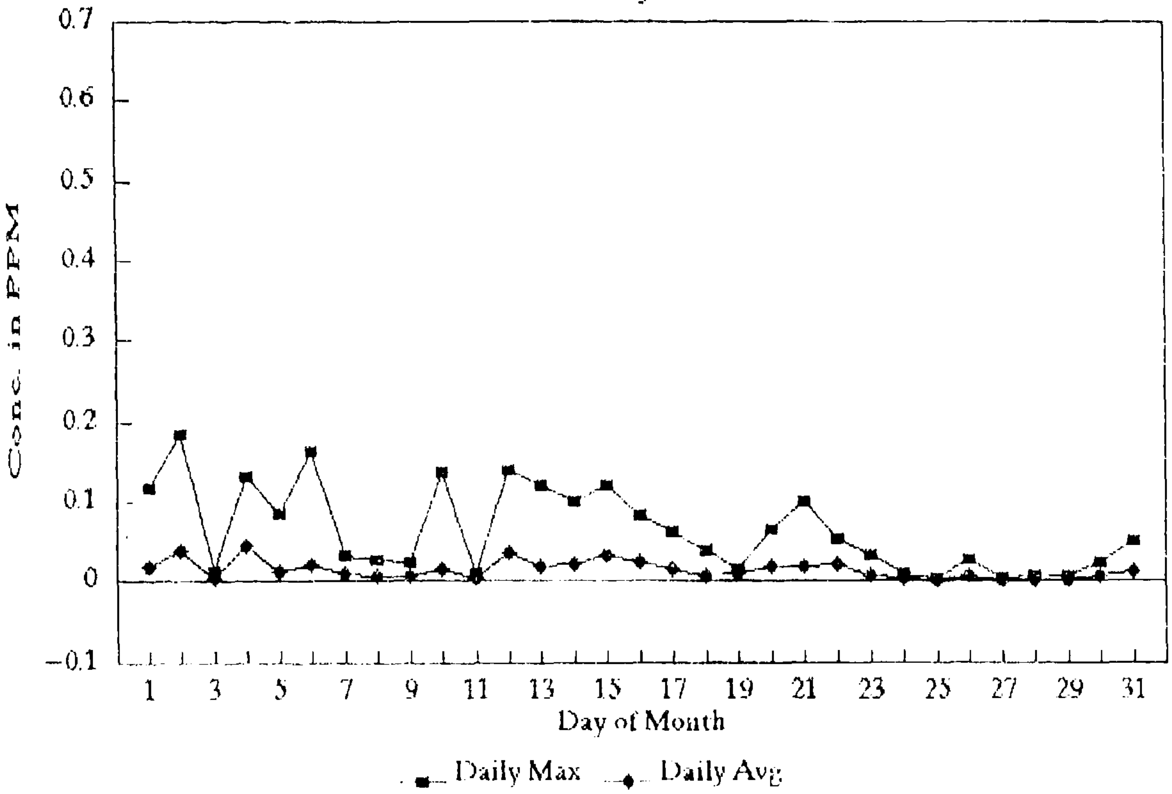


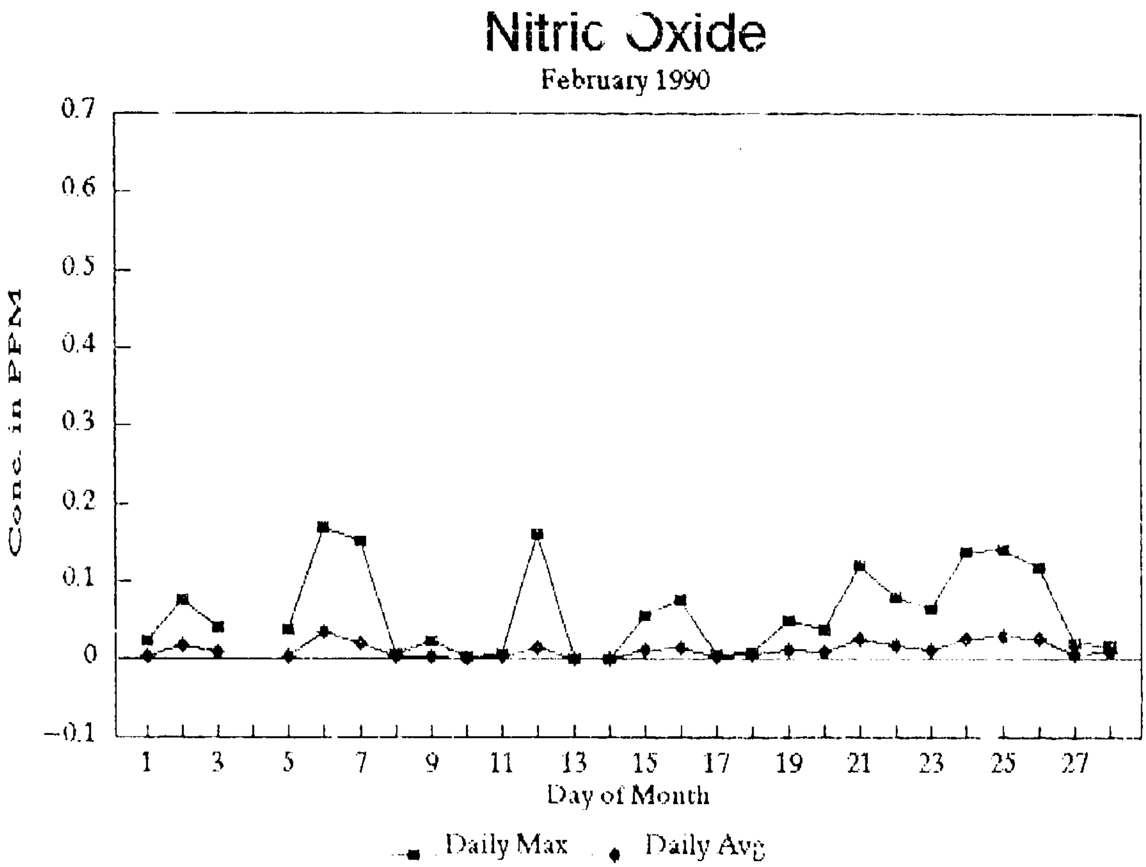
Nitric Oxide
November 1989
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

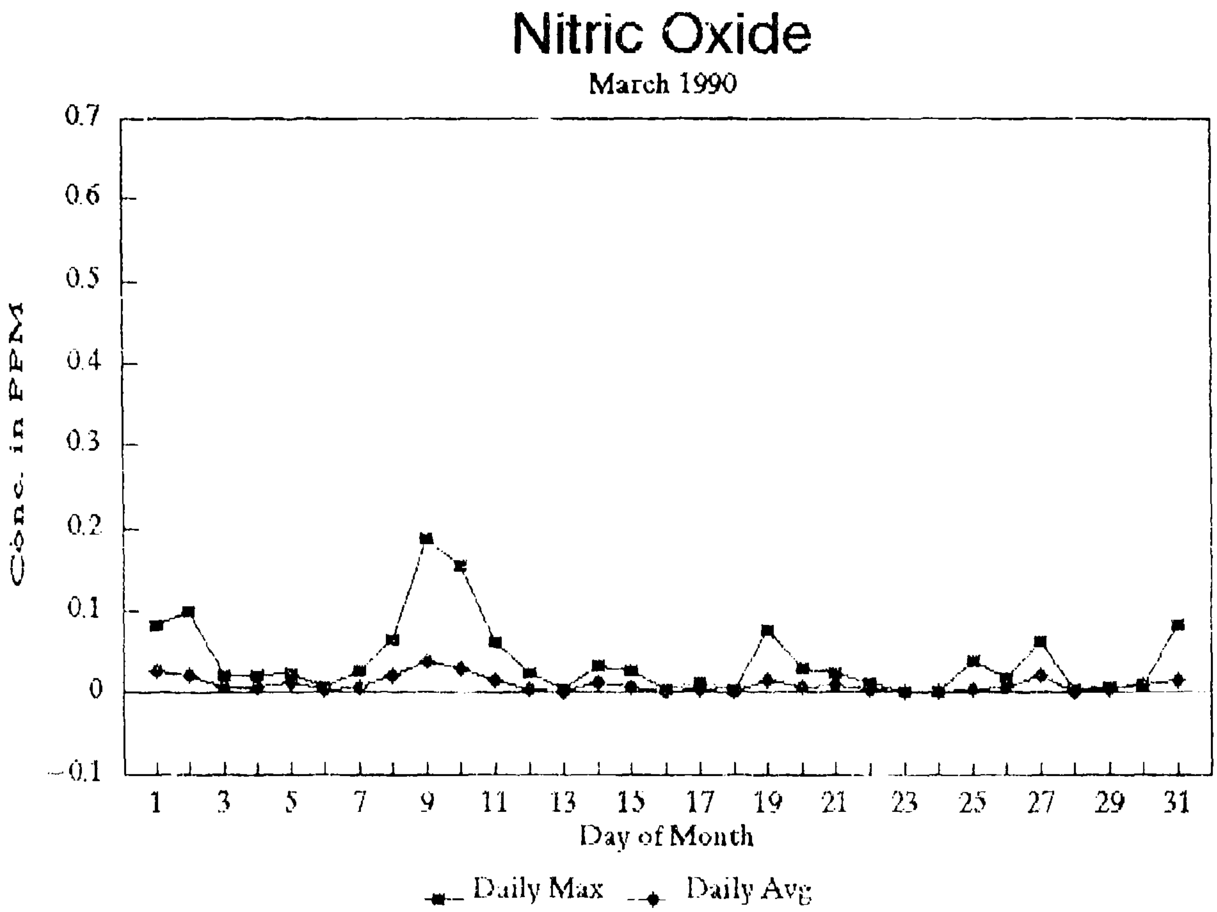

Nitric Oxide
December 1989
Conc. in PPM
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

Nitric Oxide

January 1990



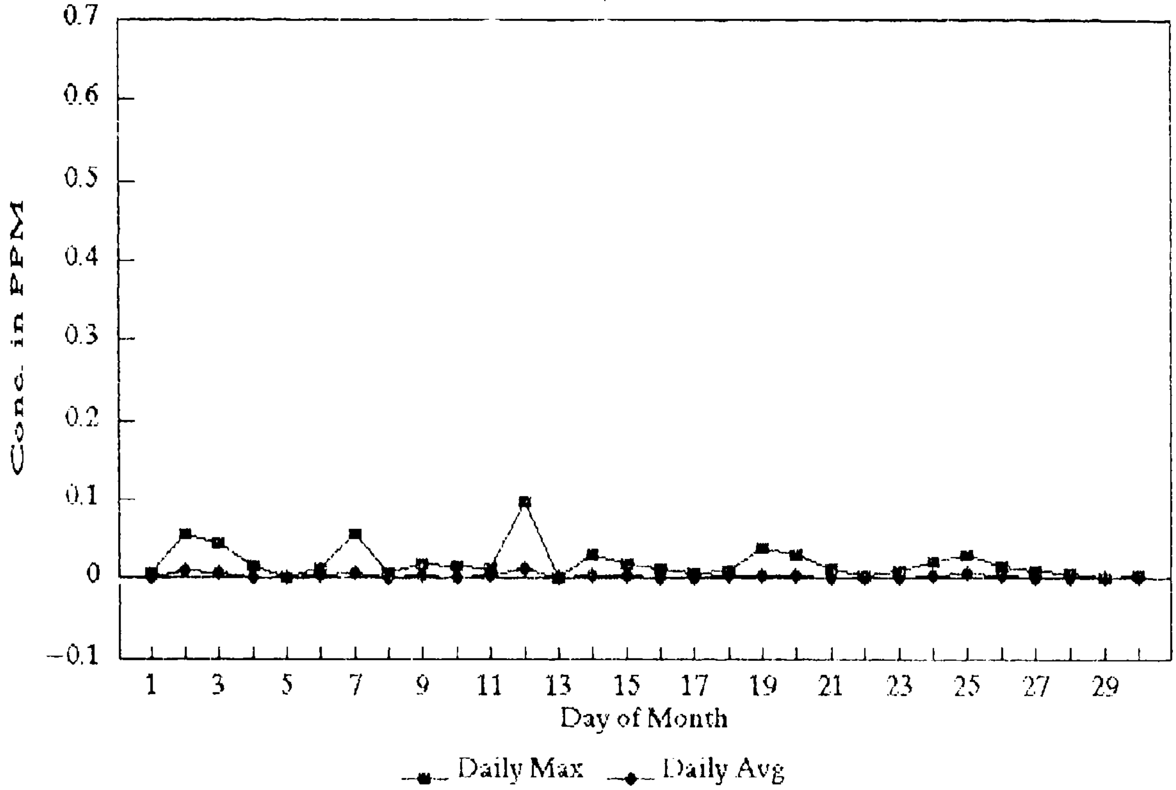


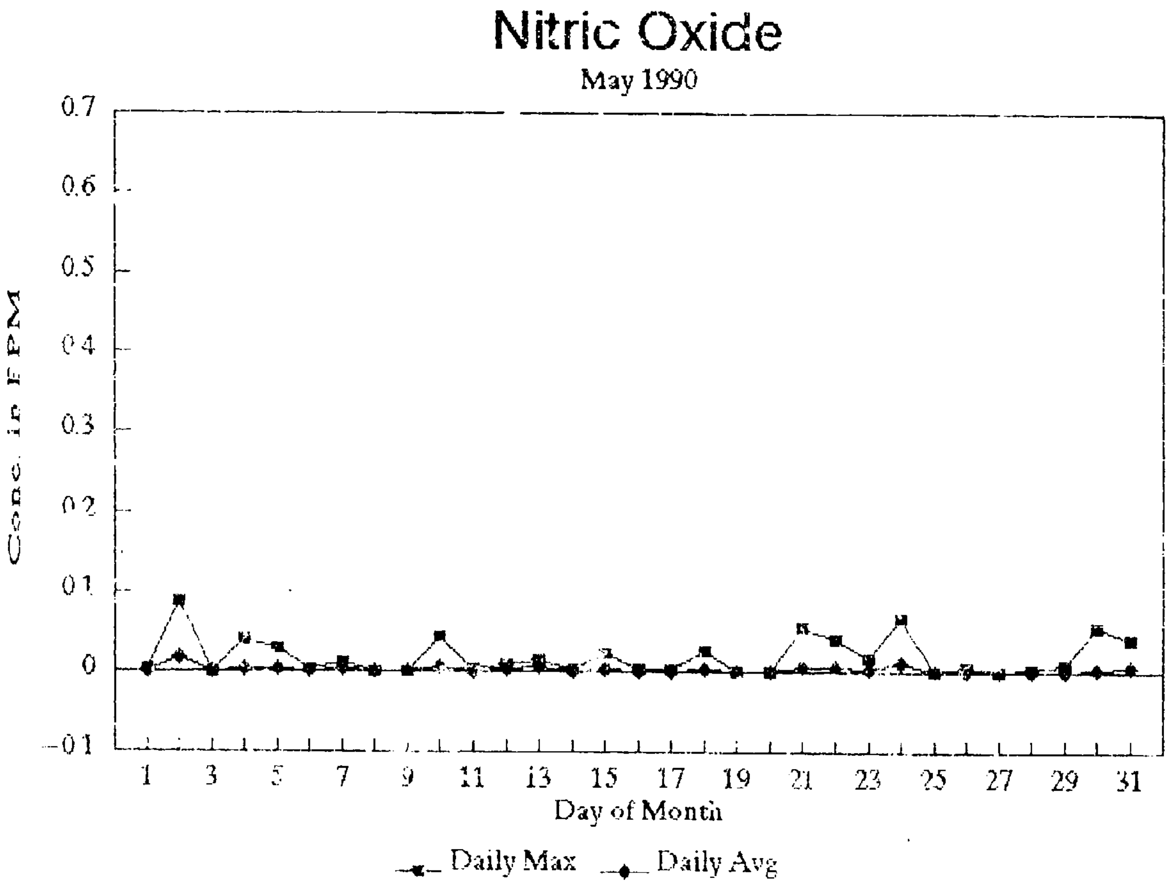


Nitric Oxide
March 1990
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

Nitric Oxide

April 1990

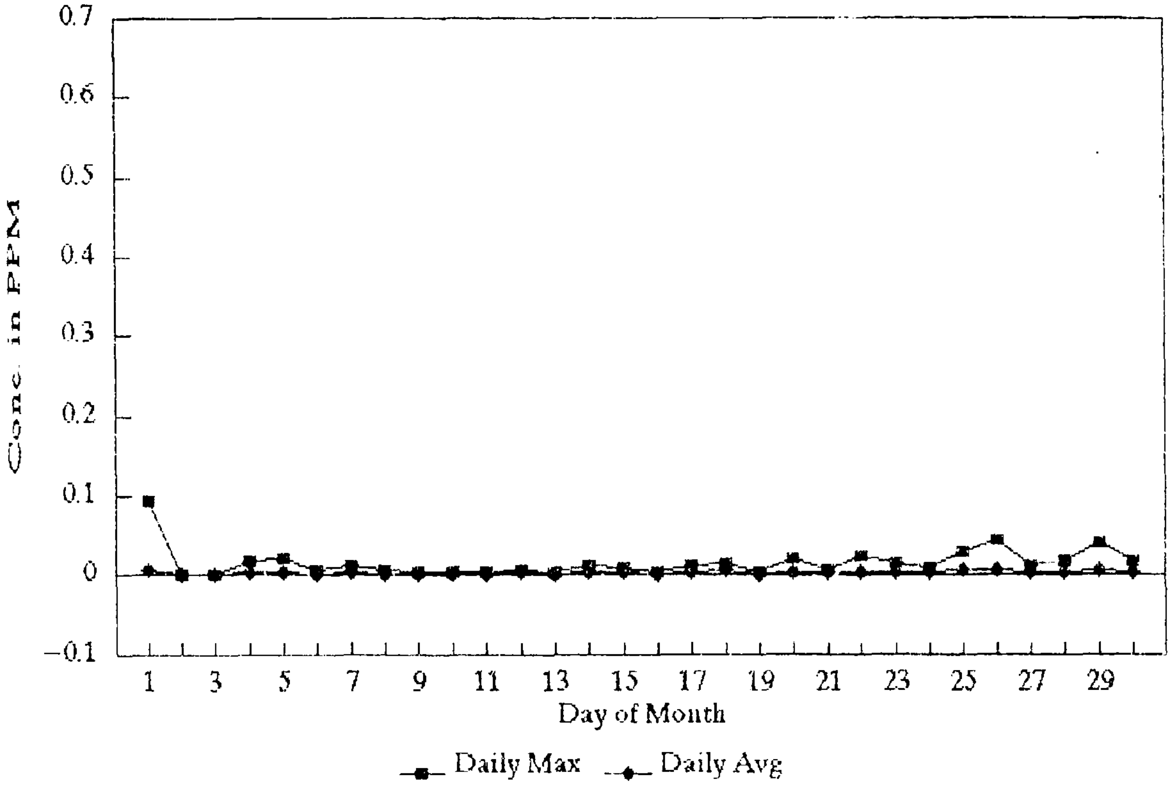


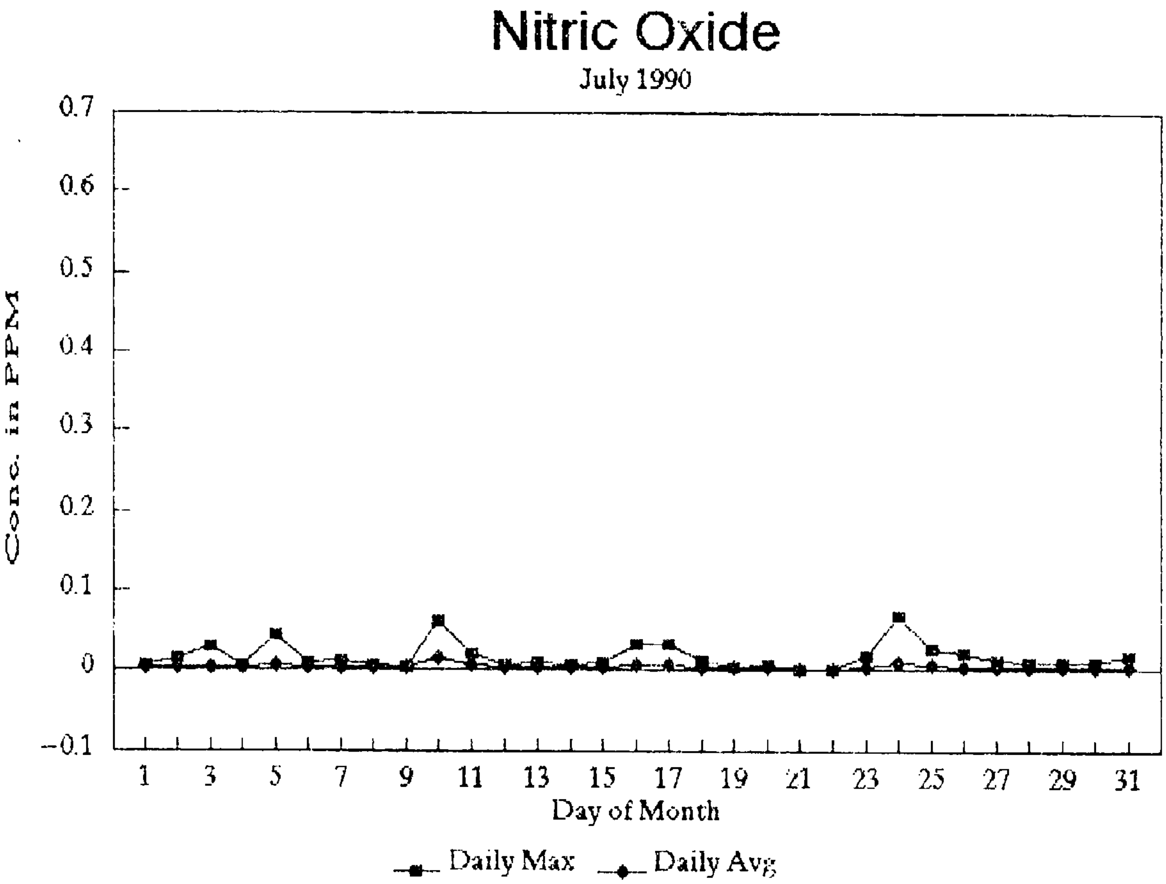


Nitric Oxide
May 1990
Conc. in PPM
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

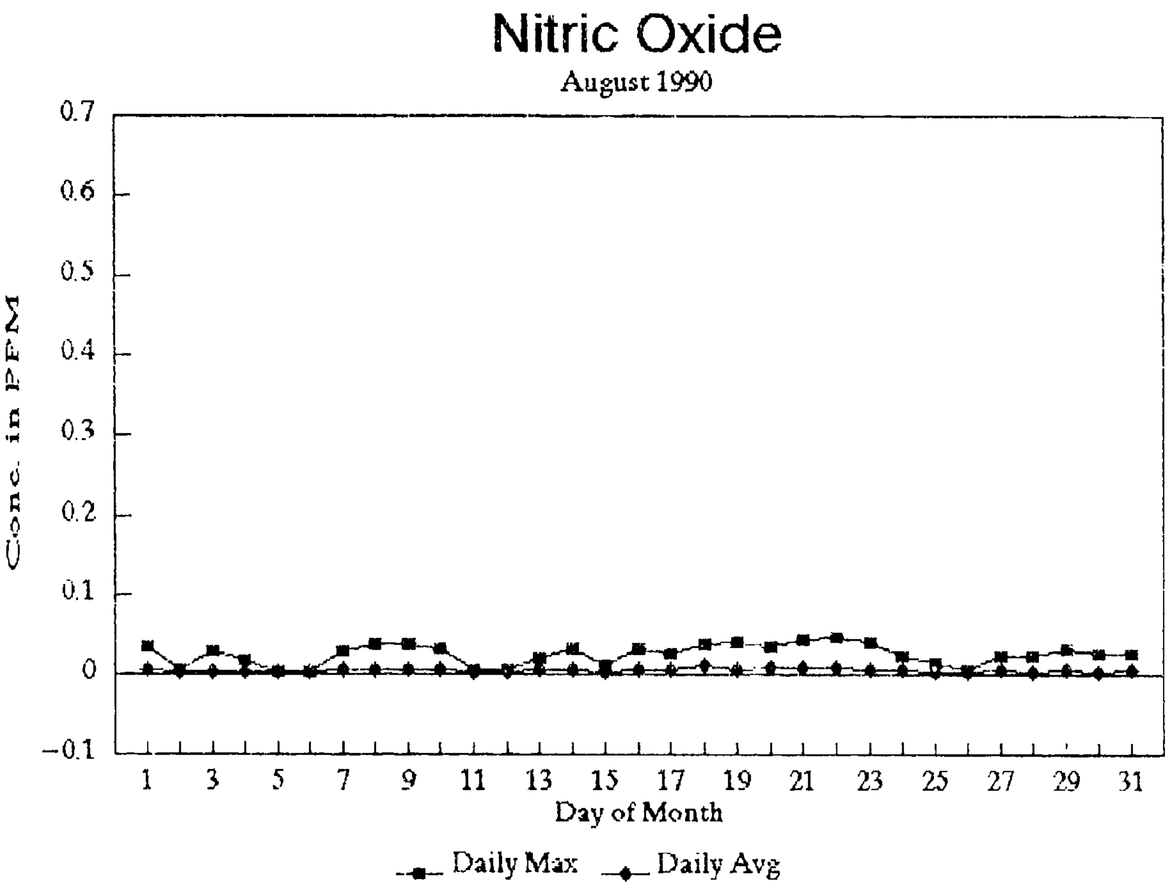
Nitric Oxide

June 1990

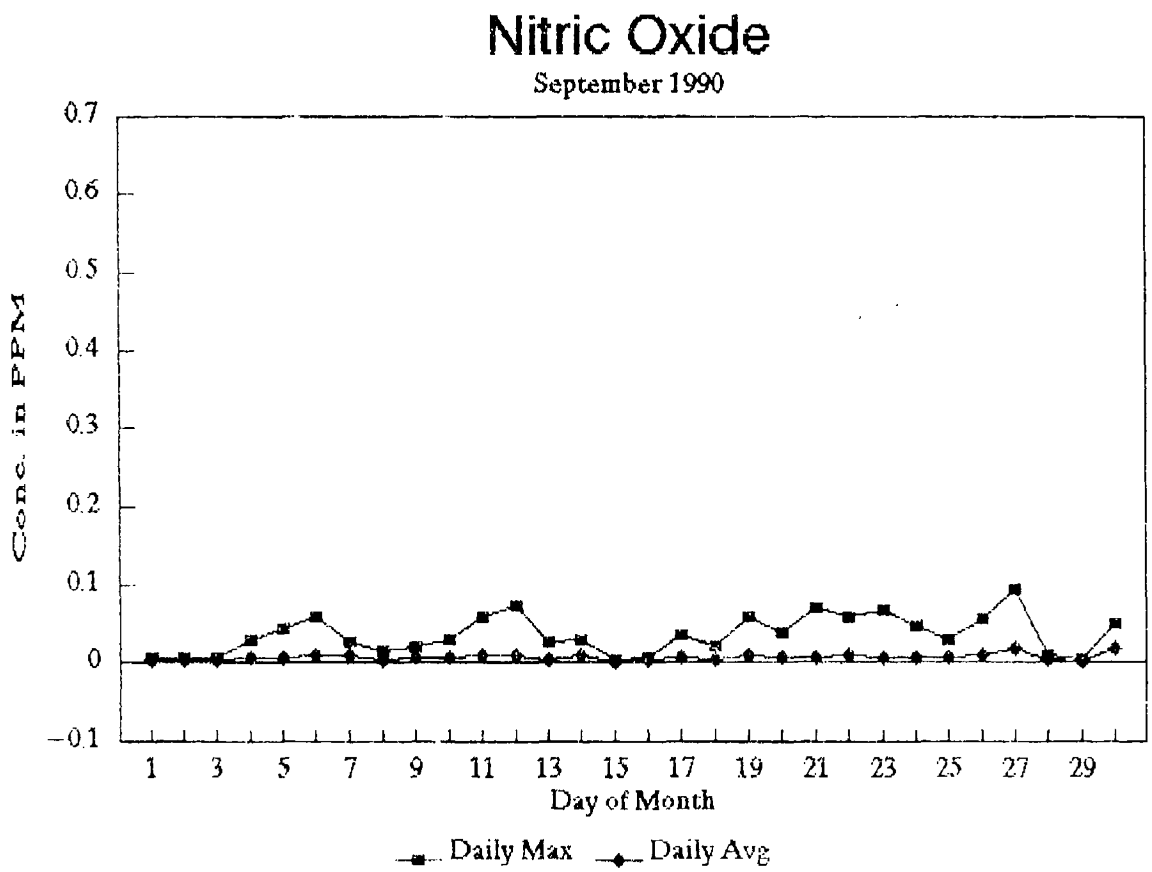




Nitric Oxide
July 1990
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg



Nitric Oxide
August 1990
Conc. in PPM
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Nitric Oxide
September 1990
Conc. in PPM
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

15 Nitrogen Dioxide (NO_2)

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
10	1	274	0.043	0.001	0.010	24
10	2	275	0.031	0.002	0.012	24
10	3	276	0.020	0.005	0.009	24
10	4	277	0.029	0.003	0.013	24
10	5	278	0.020	0.001	0.007	24
10	6	279	0.057	0.004	0.023	24
10	7	280	0.062	0.003	0.021	24
10	8	281	0.051	0.001	0.019	24
10	9	282	0.051	0.001	0.021	24
10	10	283	0.067	0.007	0.024	24
10	11	284	0.048	0.002	0.023	24
10	12	285	0.043	0.003	0.020	24
10	13	286	0.056	0.004	0.025	20
10	14	287	0.034	0.001	0.017	24
10	15	288	0.045	0.002	0.013	24
10	16	289	0.014	0.001	0.003	24
10	17	290	0.016	0.002	0.006	24
10	18	291	0.040	0.003	0.013	24
10	19	292	0.041	0.006	0.027	24
10	20	293	0.044	0.003	0.025	24
10	21	294	0.054	0.002	0.022	24
10	22	295	0.042	0.001	0.018	24
10	23	296	0.056	0.003	0.022	24
10	24	297	0.060	0.001	0.028	20
10	25	298	0.059	0.013	0.036	24
10	26	299	0.029	0.001	0.010	24
10	27	300	0.061	0.003	0.021	24
10	28	301	0.050	0.002	0.020	16
10	29	302	0.025	0.001	0.008	24
10	30	303	0.047	0.008	0.020	24
10	31	304	0.044	0.001	0.015	24
11	1	305	0.042	0.001	0.014	24
11	2	306	0.067	0.008	0.033	24
11	3	307	0.043	0.005	0.023	24
11	4	308	0.038	0.003	0.016	24
11	5	309	0.040	0.001	0.008	24
11	6	310	0.040	0.002	0.019	24
11	7	311	0.033	0.001	0.009	24
11	8	312	0.014	0.001	0.004	20
11	9	313	0.032	0.001	0.010	24
11	10	314	0.041	0.008	0.025	24
11	11	315	0.038	0.002	0.020	24
11	12	316	0.047	0.001	0.015	24
11	13	317	0.042	0.001	0.012	24
11	14	318	0.041	0.002	0.015	24
11	15	319	0.023	0.001	0.008	24
11	16	320	0.038	0.007	0.024	24

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
11	17	321	0.042	0.003	0.023	24
11	18	322	0.049	0.003	0.024	24
11	19	323	0.072	0.007	0.025	24
11	20	324	0.050	0.003	0.025	21
11	21	325	0.054	0.004	0.026	24
11	22	326	0.037	0.001	0.006	24
11	23	327	0.050	0.018	0.035	24
11	24	328	0.038	0.003	0.016	24
11	25	329	0.033	0.001	0.008	24
11	26	330	0.042	0.005	0.019	24
11	27	331	0.037	0.001	0.005	24
11	28	332	0.044	0.011	0.029	24
11	29	333	0.051	0.005	0.025	24
11	30	334	0.063	0.019	0.038	24
12	1	335	0.049	0.003	0.026	24
12	2	336	0.051	0.006	0.025	24
12	3	337	0.046	0.013	0.034	24
12	4	338	0.048	0.005	0.017	20
12	5	339	0.040	0.002	0.011	24
12	6	340	0.037	0.001	0.011	24
12	7	341	0.032	0.002	0.012	24
12	8	342	0.064	0.005	0.037	24
12	9	343	0.034	0.003	0.016	22
12	10	344	0.018	0.001	0.003	24
12	11	345	0.049	0.001	0.022	24
12	12	346	0.054	0.006	0.026	24
12	13	347	0.049	0.005	0.023	24
12	14	348	0.064	0.001	0.021	24
12	15	349	0.067	0.001	0.019	24
12	16	350	0.075	0.005	0.028	20
12	17	351	0.056	0.023	0.038	24
12	18	352	0.063	0.004	0.018	24
12	19	353	0.119	0.046	0.078	24
12	20	354	0.072	0.004	0.023	23
12	21	355	0.008	0.001	0.003	24
12	22	356	0.112	0.005	0.054	22
12	23	357	0.133	0.006	0.057	24
12	24	358	0.046	0.004	0.024	24
12	25	359	0.077	0.013	0.036	24
12	26	360	0.051	0.012	0.031	24
12	27	361	0.075	0.004	0.037	24
12	28	362	0.058	0.004	0.028	24
12	29	363	0.045	0.003	0.015	24
12	30	364	0.046	0.002	0.020	24
12	31	365	0.042	0.003	0.025	24
1	1	1	0.055	0.003	0.023	24
1	2	2	0.064	0.003	0.031	24

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
1	3	3	0.030	0.002	0.011	24
1	4	4	0.075	0.025	0.045	24
1	5	5	0.042	0.003	0.024	24
1	6	6	0.067	0.001	0.028	24
1	7	7	0.045	0.005	0.023	24
1	8	8	0.022	0.001	0.009	24
1	9	9	0.045	0.001	0.009	24
1	10	10	0.052	0.002	0.015	24
1	11	11	0.033	0.001	0.005	24
1	12	12	0.045	0.017	0.030	24
1	13	13	0.040	0.003	0.018	24
1	14	14	0.047	0.001	0.013	24
1	15	15	0.049	0.009	0.035	24
1	16	16	0.052	0.005	0.027	24
1	17	17	0.050	0.003	0.021	24
1	18	18	0.033	0.003	0.016	24
1	19	19	0.033	0.006	0.023	13
1	20	20	0.062	0.009	0.028	24
1	21	21	0.057	0.012	0.028	24
1	22	22	0.078	0.006	0.035	23
1	23	23	0.031	0.002	0.008	24
1	24	24	0.039	0.003	0.012	22
1	25	25	0.016	0.001	0.006	24
1	26	26	0.047	0.003	0.017	24
1	27	27	0.041	0.001	0.008	24
1	28	28	0.031	0.001	0.014	24
1	29	29	0.034	0.001	0.011	24
1	30	30	0.041	0.002	0.018	24
1	31	31	0.046	0.005	0.023	24
2	1	32	0.029	0.006	0.015	20
2	2	33	0.052	0.005	0.025	24
2	3	34	0.046	0.019	0.029	10
2	4	35	ERR	ERR	ERR	0
2	5	36	0.045	0.003	0.015	13
2	6	37	0.064	0.003	0.030	24
2	7	38	0.056	0.003	0.026	24
2	8	39	0.034	0.001	0.010	24
2	9	40	0.039	0.001	0.014	24
2	10	41	0.015	0.001	0.004	24
2	11	42	0.035	0.001	0.013	24
2	12	43	0.053	0.003	0.017	24
2	13	44	0.003	0.001	0.001	24
2	14	45	0.008	0.001	0.004	24
2	15	46	0.051	0.001	0.021	22
2	16	47	0.084	0.005	0.046	24
2	17	48	0.053	0.009	0.018	24
2	18	49	0.026	0.001	0.006	24

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
2	19	50	0.036	0.005	0.018	24
2	20	51	0.050	0.010	0.017	24
2	21	52	0.052	0.002	0.025	24
2	22	53	0.043	0.003	0.021	24
2	23	54	0.045	0.002	0.021	24
2	24	55	0.059	0.017	0.031	24
2	25	56	0.049	0.003	0.021	24
2	26	57	0.051	0.004	0.026	24
2	27	58	0.020	0.001	0.005	24
2	28	59	0.017	0.001	0.007	24
3	1	60	0.046	0.005	0.023	21
3	2	61	0.045	0.001	0.027	24
3	3	62	0.042	0.003	0.016	24
3	4	63	0.042	0.001	0.011	24
3	5	64	0.038	0 003	0.016	22
3	6	65	0.007	0.004	0.005	24
3	7	66	0.020	0.005	0.007	24
3	8	67	0.063	0.011	0.037	24
3	9	68	0.120	0.007	0.053	24
3	10	69	0.095	0.001	0.037	24
3	11	70	0.069	0.005	0.029	24
3	12	71	0.041	0.003	0.012	24
3	13	72	0.008	0.0[illegible]	0.005	24
3	14	73	0.053	0.0[illegible]	0.027	24
3	15	74	0.039	0.001	0.010	22
3	16	75	0.044	0.001	0.011	24
3	17	76	0.044	0.002	0.015	24
3	18	77	0.010	0.001	0.003	24
3	19	78	0.048	0.002	0.022	24
3	20	79	0.036	0.005	0.019	24
3	21	80	0.044	0.003	0.014	24
3	22	81	0.017	0.001	0.006	24
3	23	82	0.007	0.001	0.003	24
3	24	83	0.007	0.001	0.003	24
3	25	84	0.024	0.002	0.008	24
3	26	85	0.023	0.003	0.015	24
3	27	86	0.054	0.008	0.028	24
3	28	87	0.011	0.004	0.007	24
3	29	88	0.013	0.010	0.012	8
3	30	89	0.045	0.041	0.043	3
3	31	90	0.052	0.001	0.022	24
4	1	91	0.031	0.002	0.012	24
4	2	92	0.061	0.003	0.020	24
4	3	93	0.047	0.001	0.014	22
4	4	94	0.026	0.002	0.013	24
4	5	95	0.003	0.001	0.001	24
4	6	96	0.029	0.001	0.010	24

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
4	7	97	0.053	0.004	0.019	24
4	8	98	0.034	0.004	0.011	24
4	9	99	0.032	0.001	0.011	24
4	10	100	0.012	0.002	0.006	24
4	11	101	0.026	0.002	0.011	21
4	12	102	0.061	0.004	0.020	24
4	13	103	0.032	0.002	0.007	24
4	14	104	0.040	0.001	0.013	24
4	15	105	0.041	0.002	0.013	24
4	16	106	0.036	0.001	0.008	24
4	17	107	0.019	0.001	0.010	24
4	18	108	0.047	0.003	0.017	24
4	19	109	0.040	0.003	0.017	24
4	20	110	0.046	0.002	0.018	24
4	21	111	0.028	0.004	0.015	24
4	22	112	0.022	0.001	0.008	24
4	23	113	0.036	0.002	0.012	24
4	24	114	0.046	0.003	0.021	24
4	25	115	0.040	0.002	0.015	21
4	26	116	0.025	0.002	0.011	22
4	27	117	0.034	0.001	0.008	24
4	28	118	0.017	0.001	0.005	24
4	29	119	0.010	0.001	0.002	24
4	30	120	0.023	0.001	0.009	24
5	1	121	0.015	0.001	0.008	24
5	2	122	0.050	0.005	0.018	20
5	3	123	0.034	0.003	0.008	24
5	4	124	0.047	0.003	0.016	24
5	5	125	0.039	0.001	0.009	24
5	6	126	0.018	0.001	0.008	24
5	7	127	0.032	0.003	0.009	24
5	8	128	0.010	0.003	0.006	24
5	9	129	0.007	0.001	0.004	24
5	10	130	0.033	0.001	0.013	22
5	11	131	0.017	0.003	0.007	24
5	12	132	0.023	0.001	0.009	24
5	13	133	0.040	0.003	0.014	24
5	14	134	0.036	0.001	0.010	24
5	15	135	0.035	0.001	0.008	24
5	16	136	0.020	0.001	0.005	24
5	17	137	0.018	0.002	0.008	24
5	18	138	0.045	0.002	0.015	24
5	19	139	0.019	0.001	0.008	24
5	20	140	0.010	0.003	0.005	24
5	21	141	0.049	0.002	0.013	24
5	22	142	0.040	0.004	0.016	24
5	23	143	0.040	0.001	0.014	24

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
5	24	144	0.046	0.003	0.021	20
5	25	145	0.010	0.001	0.004	24
5	26	146	0.016	0.002	0.005	24
5	27	147	0.007	0.001	0.003	24
5	28	148	0.011	0.001	0.003	24
5	29	149	0.035	0.003	0.008	24
5	30	150	0.037	0.001	0.013	24
5	31	151	0.038	0.002	0.013	24
6	1	152	0.040	0.002	0.012	24
6	2	153	0.021	0.001	0.003	24
6	3	154	0.014	0.001	0.005	24
6	4	155	0.043	0.003	0.010	24
6	5	156	0.060	0.001	0.012	24
6	6	157	0.019	0.002	0.006	24
6	7	158	0.030	0.003	0.010	22
6	8	159	0.039	0.002	0.008	24
6	9	160	0.026	0.003	0.009	24
6	10	161	0.027	0.003	0.007	24
6	11	162	0.010	0.001	0.003	24
6	12	163	0.011	0.001	0.003	24
6	13	164	0.009	0.001	0.003	23
6	14	165	0.025	0.001	0.007	24
6	15	166	0.031	0.001	0.010	24
6	16	167	0.023	0.002	0.006	24
6	17	168	0.039	0.001	0.012	24
6	18	169	0.030	0.005	0.020	9
6	19	170	0.030	0.001	0.010	12
6	20	171	0.041	0.003	0.013	24
6	21	172	0.058	0.001	0.013	21
6	22	173	0.033	0.002	0.008	24
6	23	174	0.043	0.001	0.016	22
6	24	175	0.027	0.001	0.008	24
6	25	176	0.063	0.002	0.022	24
6	26	177	0.051	0.006	0.026	24
6	27	178	0.034	0.004	0 016	24
6	28	179	0.049	0.001	0.013	24
6	29	180	0.062	0.001	0.015	24
6	30	181	0.034	0.004	0.012	24
7	1	182	0.042	0.003	0.014	24
7	2	183	0.048	0.001	0.016	24
7	3	184	0.047	0.004	0.015	24
7	4	185	0.014	0.003	0.008	24
7	5	186	0.035	0.003	0.012	21
7	6	187	0.043	0.002	0.016	24
7	7	188	0.027	0.002	0.011	24
7	8	189	0.020	0.003	0.010	24
7	9	190	0.011	0.004	0.007	24

Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

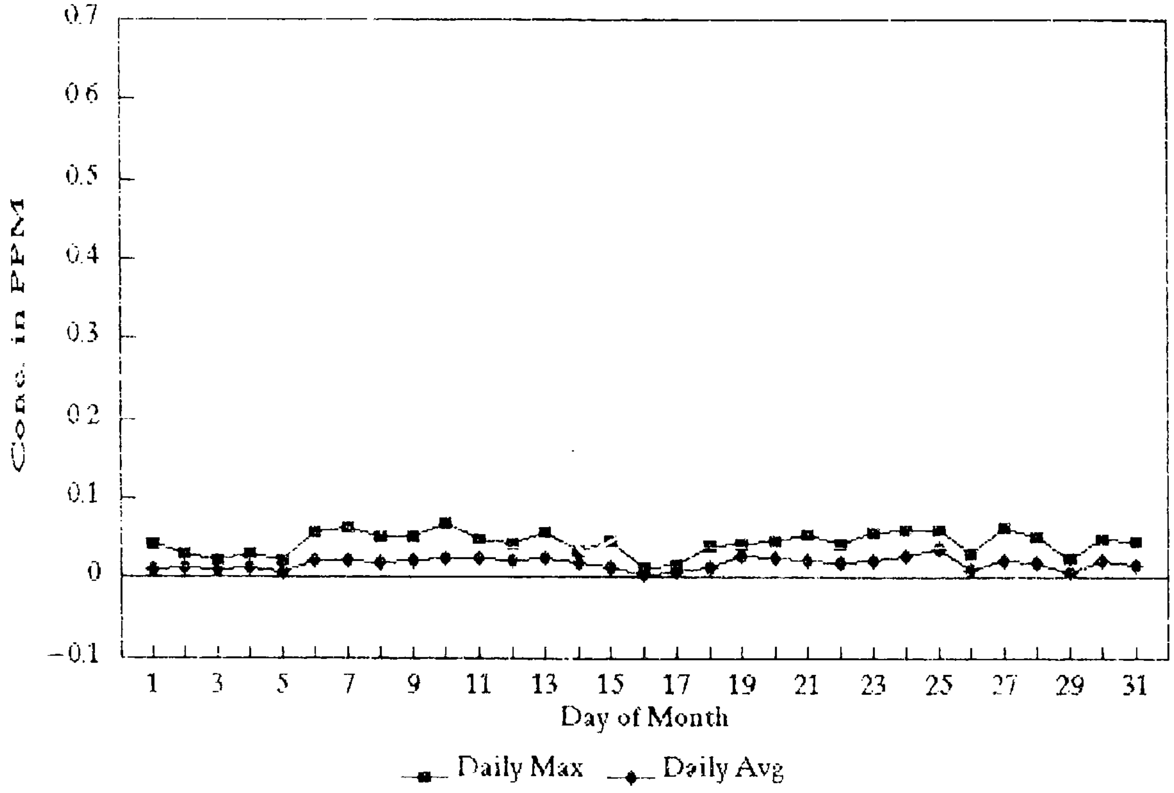
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
7	10	191	0.046	0.003	0.018	24
7	11	192	0.055	0.003	0.017	24
7	12	193	0.030	0.003	0.006	24
7	13	194	0.039	0.004	0.010	24
7	14	195	0.044	0.003	0.015	24
7	15	196	0.038	0.001	0.013	24
7	16	197	0.054	0.003	0.018	24
7	17	198	0.045	0.001	0.015	24
7	18	199	0.034	0.003	0.015	24
7	19	200	0.016	0.002	0.006	24
7	20	201	0.014	0.002	0.006	21
7	21	202	0.004	0.001	0.002	24
7	22	203	0.014	0.001	0.004	24
7	23	204	0.027	0.004	0.014	24
7	24	205	0.052	0.001	0.023	24
7	25	206	0.044	0.001	0.013	20
7	26	207	0.046	0.003	0.014	24
7	27	208	0.022	0.003	0.009	24
7	28	209	0.024	0.003	0.011	24
7	29	210	0.027	0.002	0.009	24
7	30	211	0.023	0.003	0.009	24
7	31	212	0.028	0.004	0.012	24
8	1	213	0.041	0.003	0.017	24
8	2	214	0.046	0.001	0.019	22
8	3	215	0.045	0.003	0.014	22
8	4	216	0.048	0.003	0.013	24
8	5	217	0.011	0.002	0.005	24
8	6	218	0.034	0.003	0.008	24
8	7	219	0.049	0.001	0.017	24
8	8	220	0.056	0.001	0.024	24
8	9	221	0.048	0.003	0.016	24
8	10	222	0.056	0.003	0.026	24
8	11	223	0.027	0.003	0.009	24
8	12	224	0.034	0.002	0.013	24
8	13	225	0.044	0.007	0.020	24
8	14	226	0.040	0.003	0.014	24
8	15	227	0.036	0.004	0.015	24
8	16	228	0.032	0.003	0.015	20
8	17	229	0.033	0.003	0.016	24
8	18	230	0.031	0.003	0.014	24
8	19	231	0.032	0.001	0.008	17
8	20	232	0.049	0.002	0.013	16
8	21	233	0.044	0.003	0.0[illegible]0	24
8	22	234	0.043	0.003	0.022	24
8	23	235	0.028	0.001	0.012	24
8	24	236	0.048	0.001	0.015	24
8	25	237	0.053	0.001	0.014	24

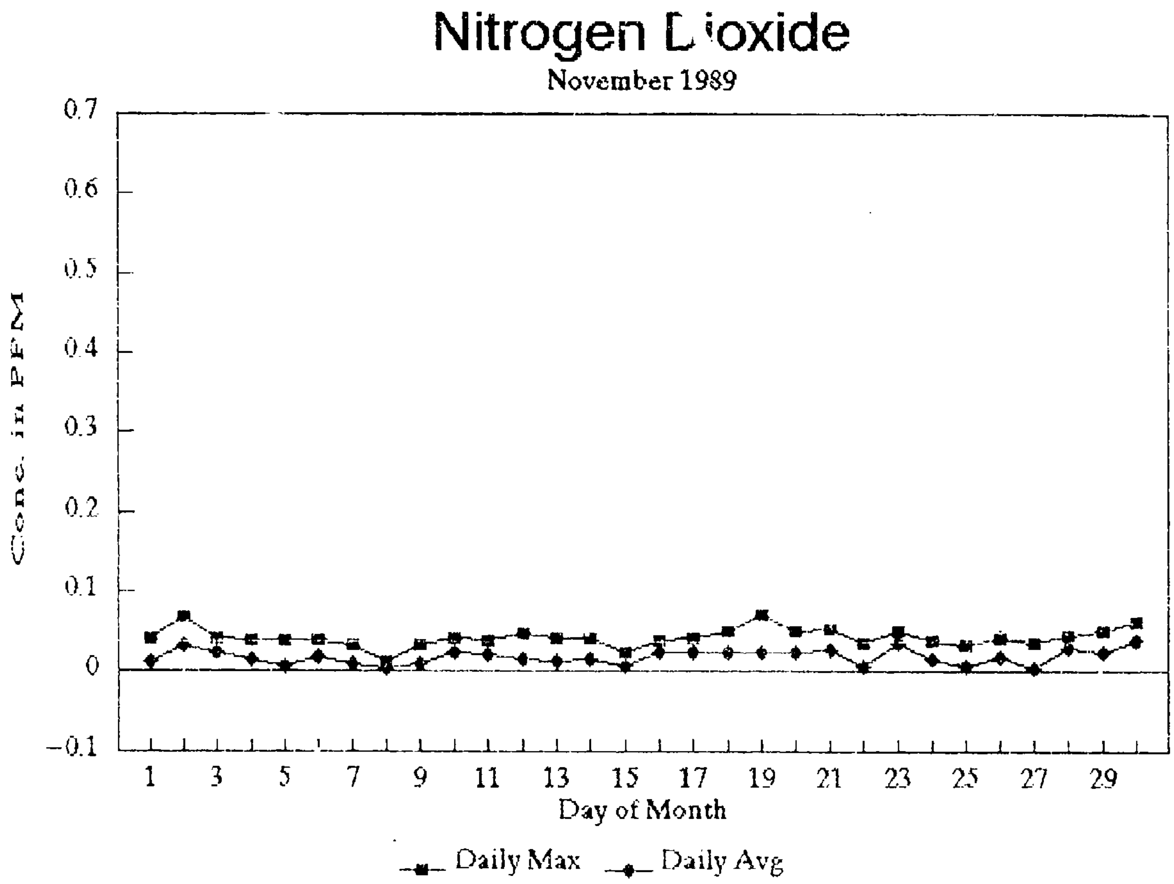
Nitrogen Dioxide (NO2) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
8	26	238	0.055	0.001	0.013	24
8	27	239	0.039	0.002	0.017	24
8	28	240	0.038	0.001	0.015	24
8	29	241	0.045	0.003	0.019	24
8	30	242	0.043	0.003	0.015	20
8	31	243	0.050	0.003	0.015	24
9	1	244	0.043	0.005	0.012	24
9	2	245	0.031	0.003	0.010	24
9	3	246	0.026	0.002	0.012	24
9	4	247	0.051	0.005	0.016	24
9	5	248	0.050	0.003	0.018	24
9	6	249	0.049	0.004	0.018	24
9	7	250	0.058	0.002	0.020	24
9	8	251	0.047	0.003	0.017	24
9	9	252	0.036	0.002	0.015	24
9	10	253	0.052	0.002	0.019	24
9	11	254	0.044	0.002	0.015	24
9	12	255	0.065	0.002	0.017	24
9	13	256	0.040	0.002	0.010	22
9	14	257	0.028	0.007	0.015	10
9	15	258	0.008	0.003	0.004	11
9	16	259	0.030	0.001	0.006	24
9	17	260	0.041	0.001	0.012	24
9	18	261	0.031	0.002	0.013	24
9	19	262	0.056	0.003	0.016	24
9	20	263	0.039	0.002	0.013	24
9	21	264	0.056	0.002	0.015	24
9	22	265	0.051	0.003	0.014	24
9	23	266	0.069	0.004	0.018	24
9	24	267	0.051	0.00[illegible]	0.022	24
9	25	268	0.032	0.004	0.015	24
9	26	269	0.045	0.003	0.016	24
9	27	270	0.046	0.002	0.021	22
9	28	271	0.021	0.008	0.013	24
9	29	272	0.013	0.002	0.005	24
9	30	273	0.047	0.001	0.018	24

Nitrogen Dioxide

October 1989

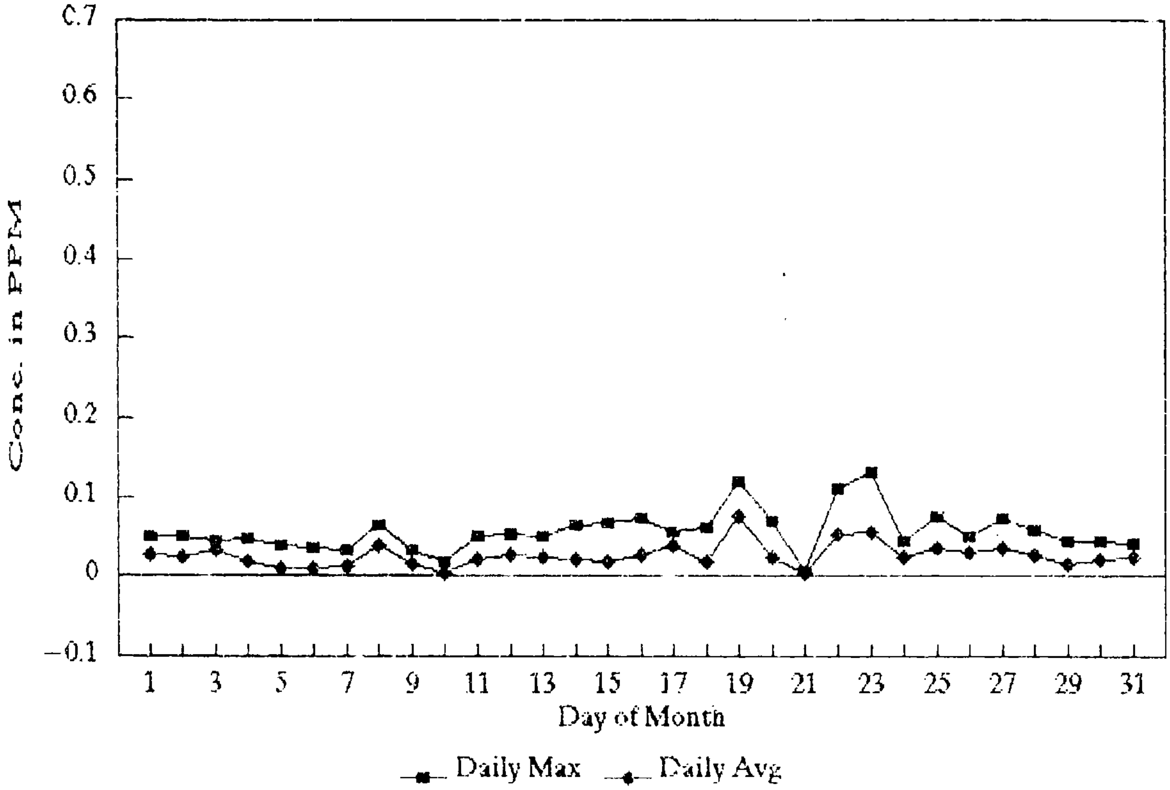


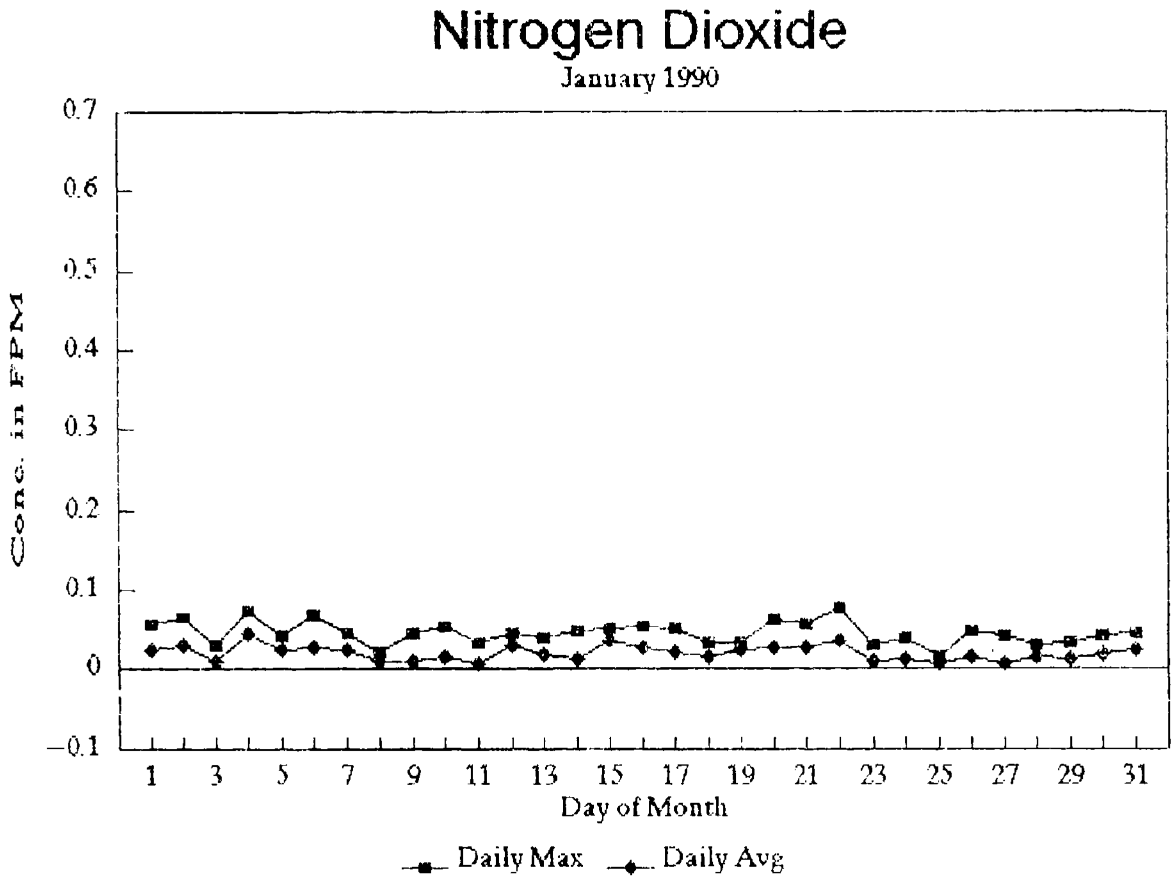


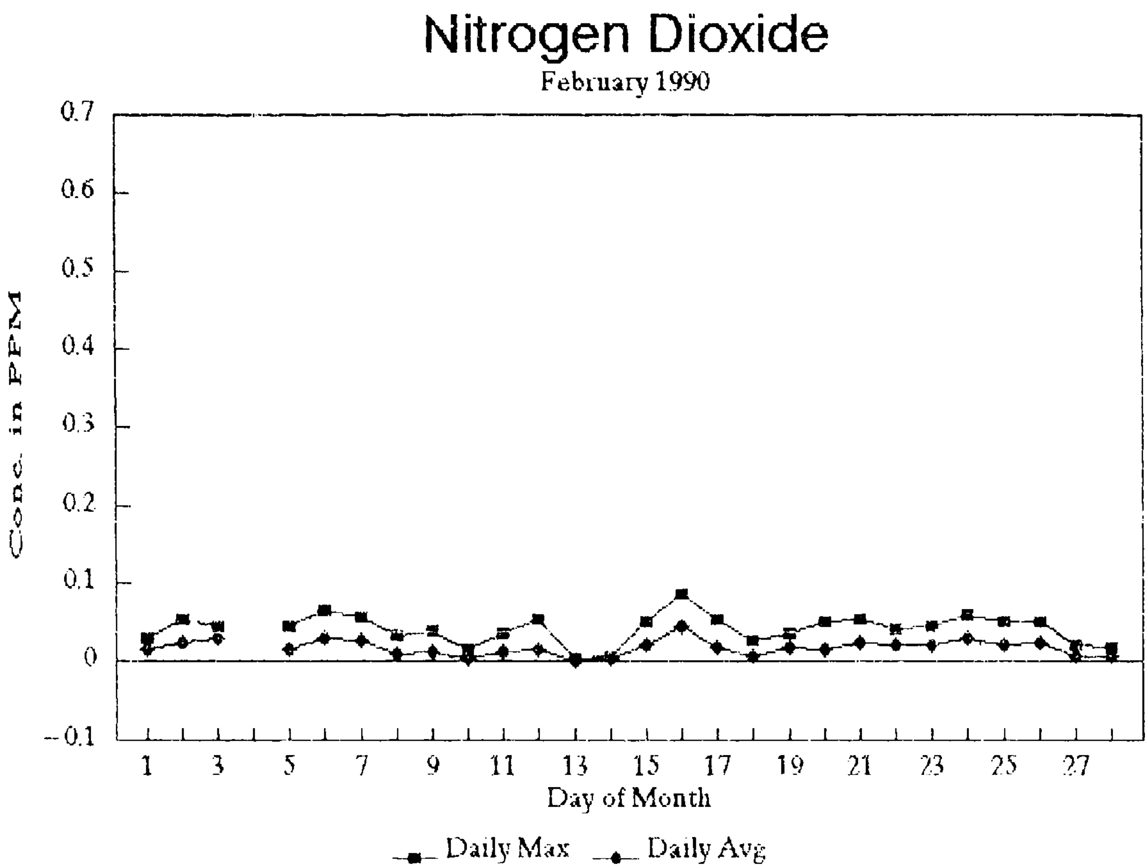
Nitrogen Dioxide
November 1989
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

Nitrogen Dioxide

December 1989

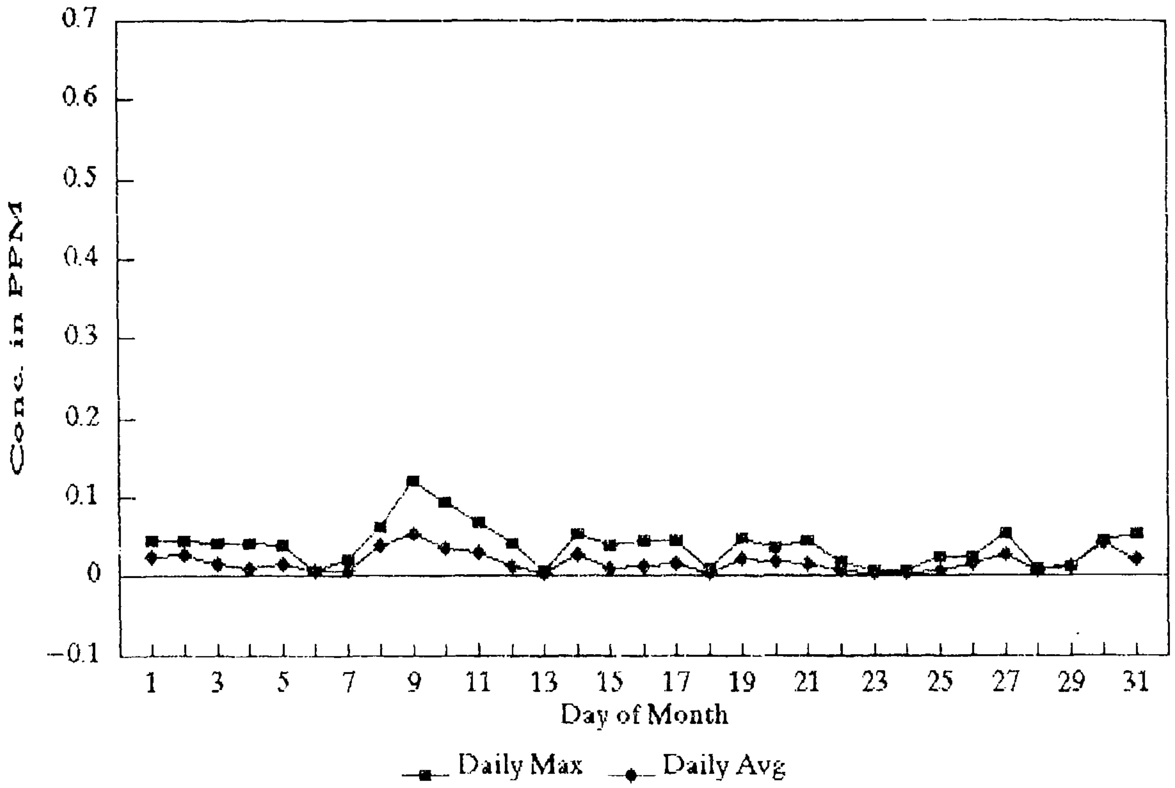



Nitrogen Dioxide
January 1990
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Nitrogen Dioxide
February 1990
Conc. in PPM
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
Day of Month
Daily Max
Daily Avg

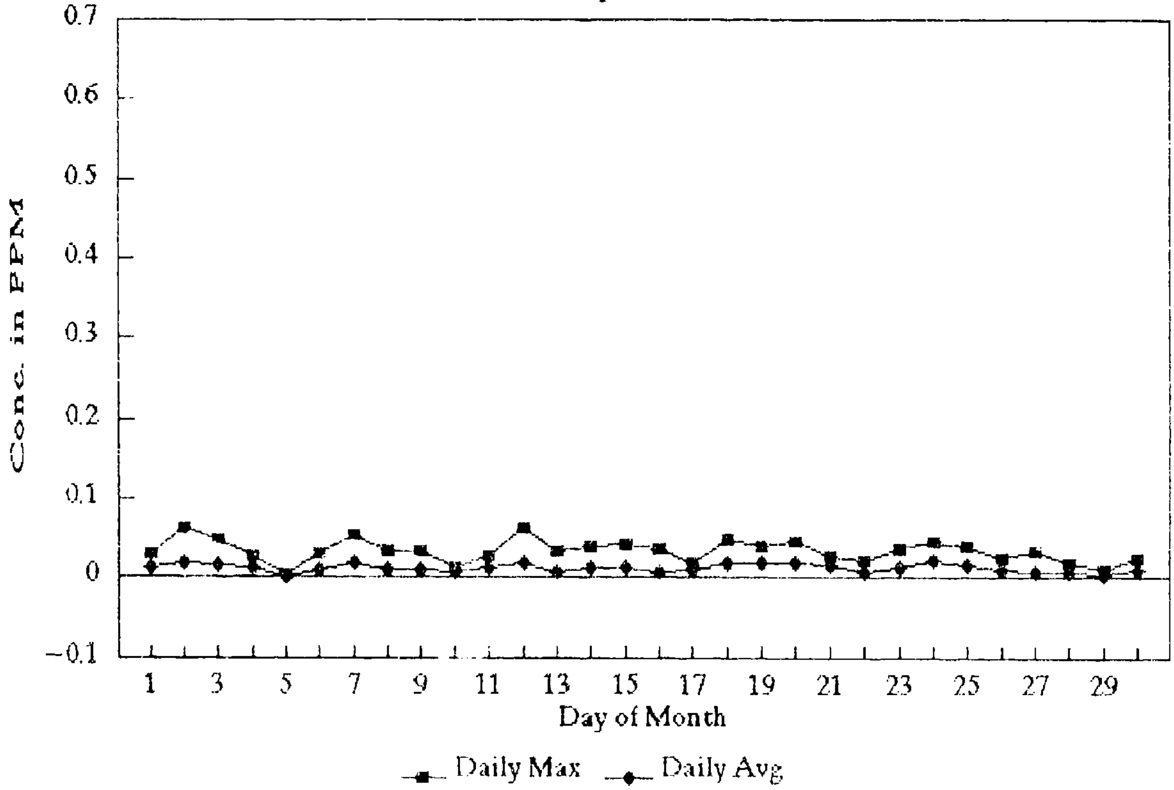
Nitrogen Dioxide

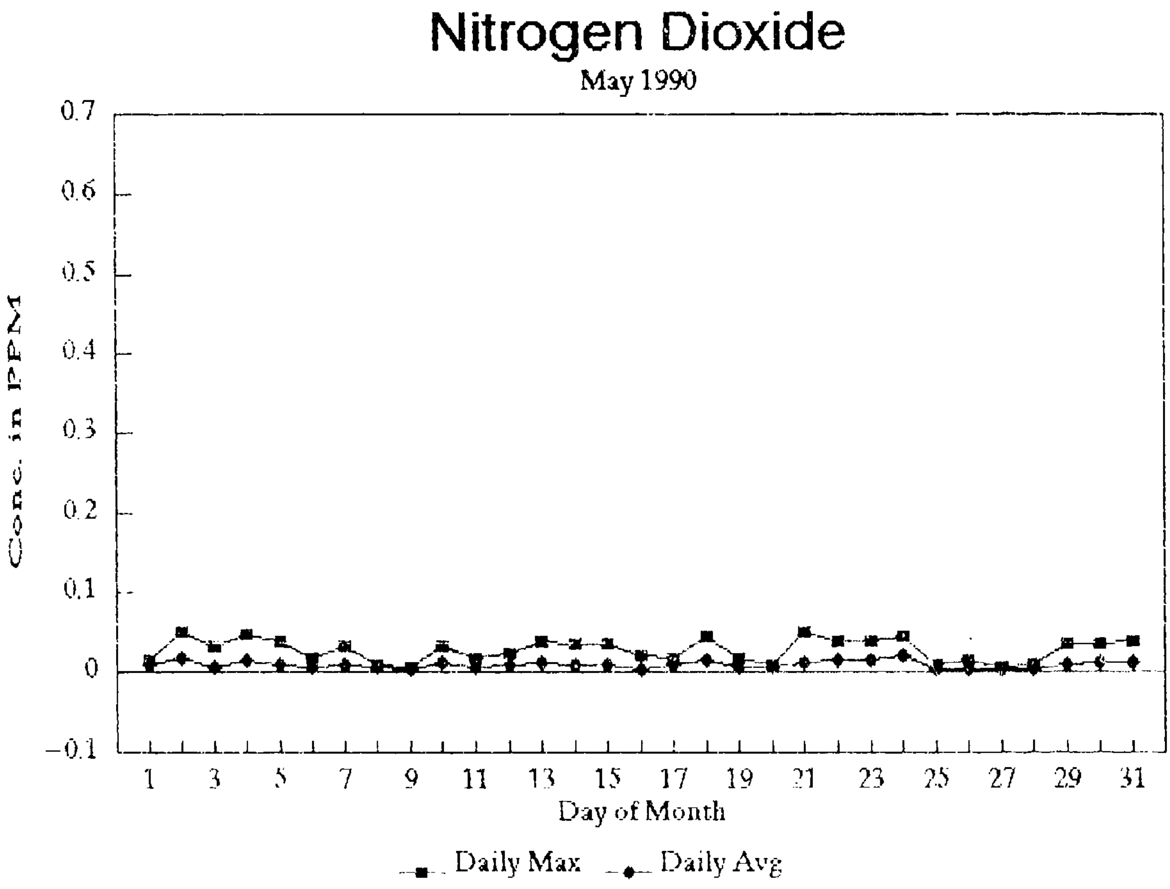
March 1990

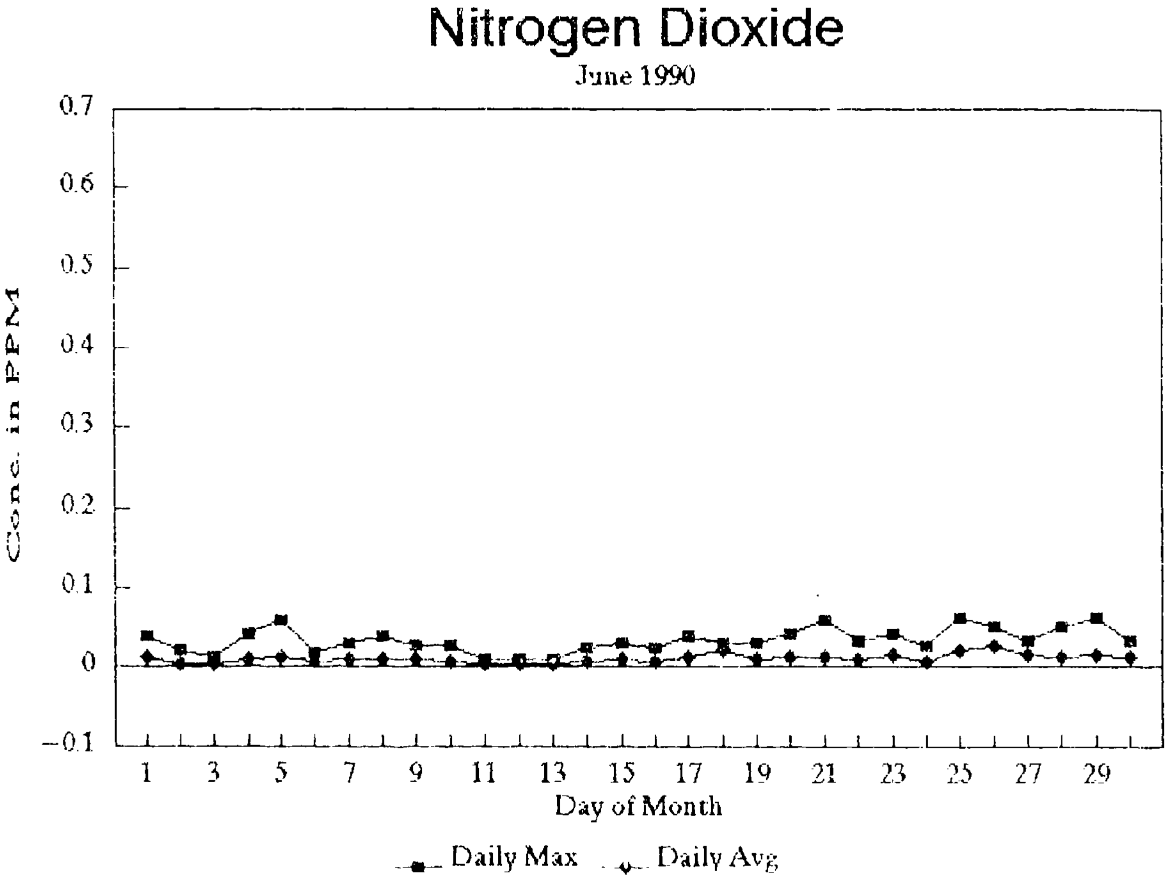


Nitrogen Dioxide

April 1990

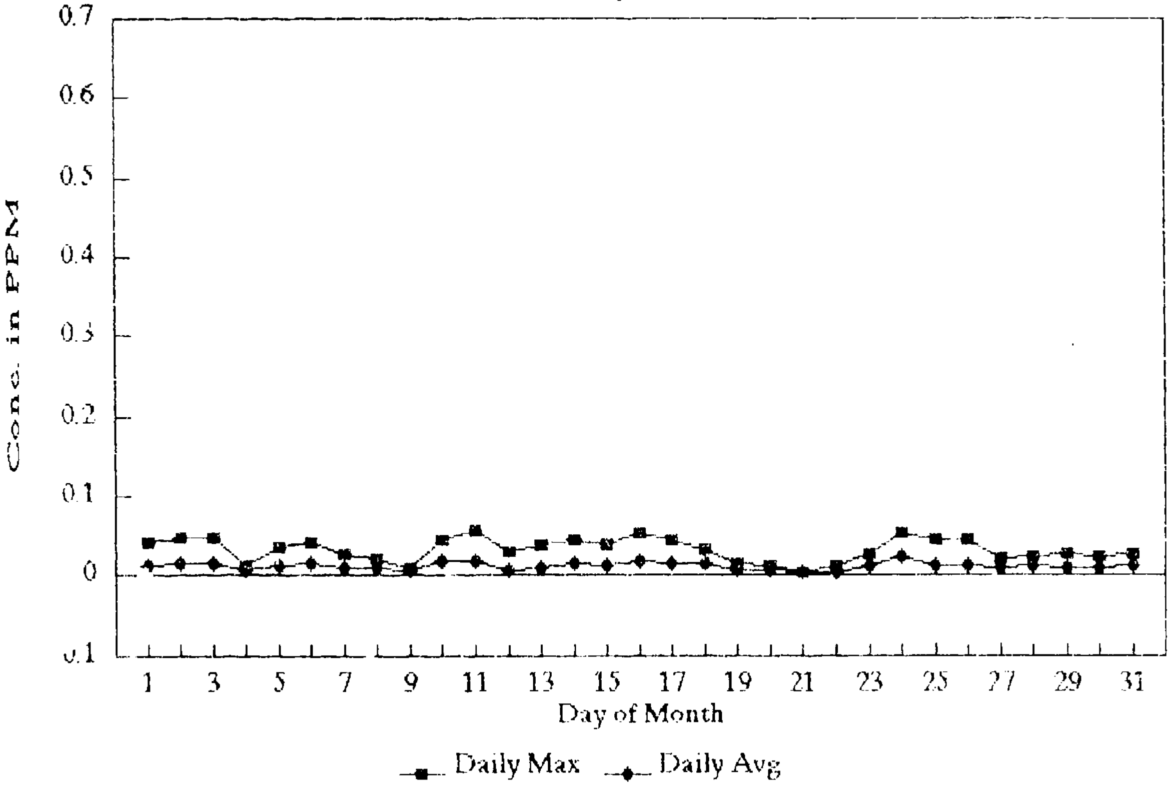


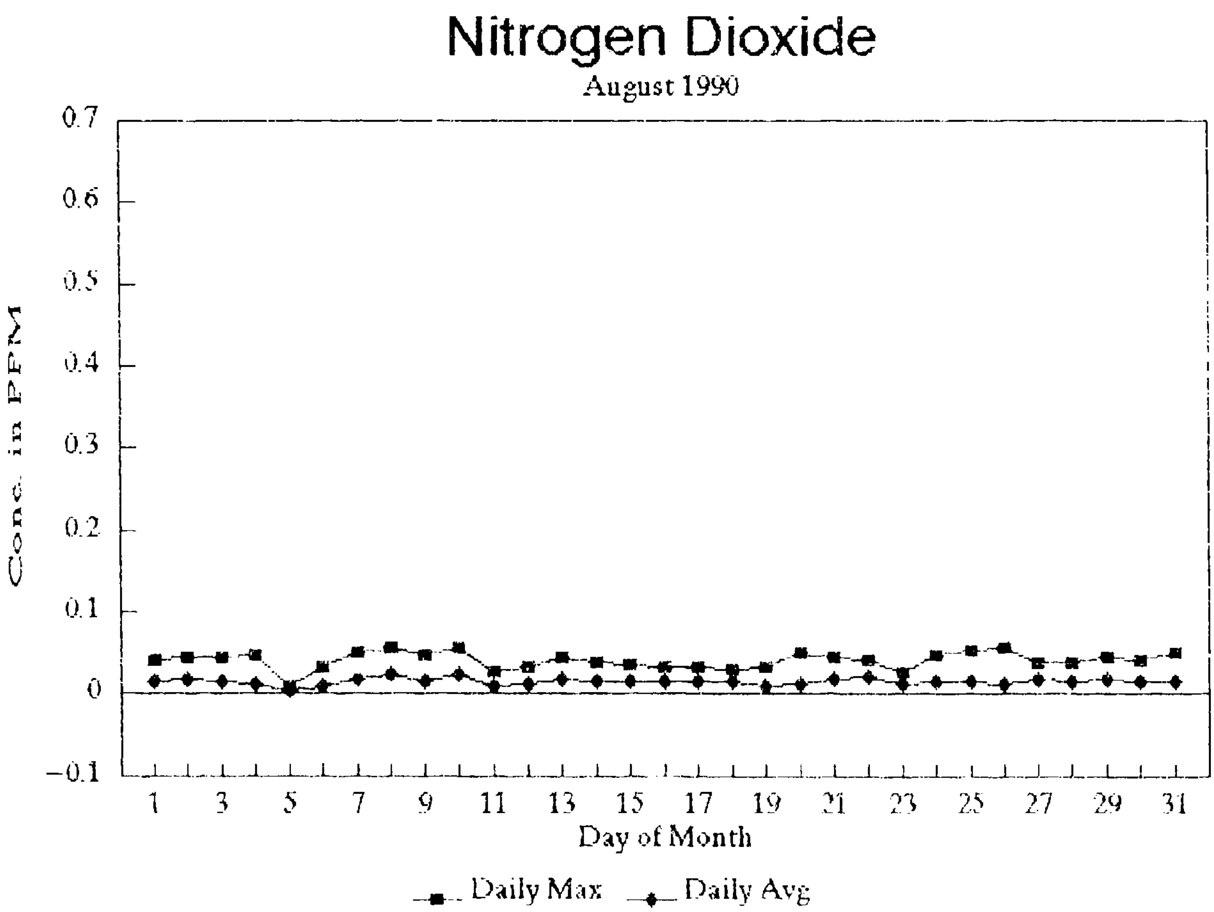

Nitrogen Dioxide
May 1990
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Nitrogen Dioxide
June 1990
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
Day of Month
Daily Max
Daily Avg

Nitrogen Dioxide

July 1990

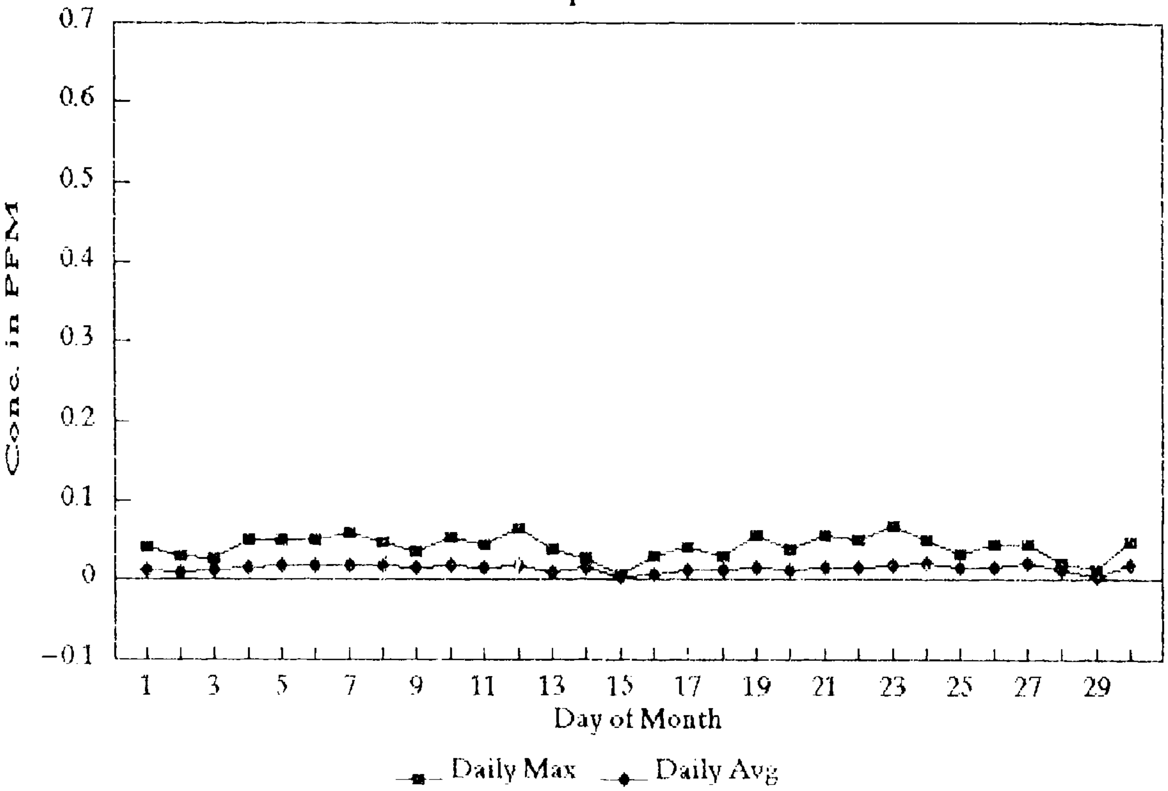




Nitrogen Dioxide
August 1990
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
Conc. in PPM
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

Nitrogen Dioxide

September 1990



16 Nitrogen Oxides (NO_x)

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
10	1	274	0.043	0.001	0.009	24
10	2	275	0.057	0.001	0.019	24
10	3	276	0.023	0.008	0.014	24
10	4	277	0.058	0.010	0.025	24
10	5	278	0.053	0.006	0.018	24
10	6	279	0.130	0.009	0.038	24
10	7	280	0.112	0.007	0.034	24
10	8	281	0.078	0.003	0.027	24
10	9	282	0.145	0.005	0.036	24
10	10	283	0.113	0.010	0.036	24
10	11	284	0.096	0.003	0.032	24
10	12	285	0.085	0.003	0.029	24
10	13	286	0.111	0.004	0.035	20
10	14	287	0.055	0.001	0.023	24
10	15	288	0.059	0.003	0.016	24
10	16	289	0.016	0.002	0.006	24
10	17	290	0.028	0.003	0.014	24
10	18	291	0.145	0.008	0.037	24
10	19	292	0.116	0.012	0.050	24
10	20	293	0.149	0.004	0.050	24
10	21	294	0.127	0.002	0.034	24
10	22	295	0.065	0.002	0.027	24
10	23	296	0.095	0.004	0.035	24
10	24	297	0.147	0.001	0.050	20
10	25	298	0.186	0.014	0.064	24
10	26	299	0.030	0.001	0.011	24
10	27	300	0.146	0.005	0.031	24
10	28	301	0.115	0.004	0.041	16
10	29	302	0.034	0.001	0.014	24
10	30	303	0.123	0.011	0.039	24
10	31	304	0.101	0.002	0.025	24
11	1	305	0.099	0.002	0.024	24
11	2	306	0.115	0.012	0.047	24
11	3	307	0.127	0.010	0.040	24
11	4	308	0.080	0.006	0.027	24
11	5	309	0.077	0.002	0.016	24
11	6	310	0.140	0.004	0.039	24
11	7	311	0.043	0.003	0.014	24
11	8	312	0.027	0.001	0.007	20
11	9	313	0.046	0.003	0.016	24
11	10	314	0.152	0.012	0.050	24
11	11	315	0.100	0.003	0.034	24
11	12	316	0.125	0.001	0.025	24
11	13	317	0.145	0.005	0.027	24
11	14	318	0.120	0.003	0.032	24
11	15	319	0.023	0.001	0.008	24
11	16	320	0.109	0.005	0.040	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
11	17	321	0.104	0.004	0.038	24
11	18	322	0.118	0.007	0.036	24
11	19	323	0.210	0.010	0.042	24
11	20	324	0.184	0.003	0.064	21
11	21	325	0.259	0.004	0.072	24
11	22	326	0.165	0.005	0.018	24
11	23	327	0.193	0.024	0.079	24
11	24	328	0.060	0.006	0.023	24
11	25	329	0.039	0.003	0.014	24
11	26	330	0.125	0.007	0.037	24
11	27	331	0.067	0.001	0.009	24
11	28	332	0.160	0.021	0.061	24
11	29	333	0.158	0.005	0.042	24
11	30	334	0.311	0.021	0.090	24
12	1	335	0.339	0.004	0.070	24
12	2	336	0.155	0.006	0.046	24
12	3	337	0.141	0.019	0.064	24
12	4	338	0.130	0.007	0.027	20
12	5	339	0.095	0.003	0.021	24
12	6	340	0.070	0.005	0.021	24
12	7	341	0.149	0.004	0.029	24
12	8	342	0.220	0.004	0.084	24
12	9	343	0.062	0.001	0.023	22
12	10	344	0.025	0.001	0.009	24
12	11	345	0.119	0.001	0.038	24
12	12	346	0.129	0.012	0.035	24
12	13	347	0.058	0.010	0.029	24
12	14	348	0.215	0.001	0.039	24
12	15	349	0.136	0.001	0.034	24
12	16	350	0.182	0.007	0.047	20
12	17	351	0.132	0.025	0.067	24
12	18	352	0.185	0.001	0.029	24
12	19	353	0.253	0.085	0.150	24
12	20	354	0.163	0.001	0.036	23
12	21	355	0.005	0.001	0.001	24
12	22	356	0.442	0.001	0.127	22
12	23	357	0.640	0.017	0.160	24
12	24	358	0.076	0.007	0.036	24
12	25	359	0.151	0.020	0.053	24
12	26	360	0.099	0.024	0.052	24
12	27	361	0.249	0.007	0.071	24
12	28	362	0.162	0.008	0.050	24
12	29	363	0.197	0.006	0.036	24
12	30	364	0.118	0.006	0.039	24
12	31	365	0.069	0.006	0.035	24
1	1	1	0.173	0.007	0.042	24
1	2	2	0.244	0.004	0.071	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
1	3	3	0.044	0.006	0.016	24
1	4	4	0.193	0.026	0.090	24
1	5	5	0.124	0.007	0.038	24
1	6	6	0.225	0.014	0.050	24
1	7	7	0.080	0.013	0.033	24
1	8	8	0.047	0.004	0.016	24
1	9	9	0.071	0.004	0.016	24
1	10	10	0.193	0.004	0.031	24
1	11	11	0.039	0.001	0.009	24
1	12	12	0.189	0.025	0.068	24
1	13	13	0.159	0.008	0.036	24
1	14	14	0.146	0.012	0.035	24
1	15	15	0.170	0.016	0.068	24
1	16	16	0.127	0.012	0.051	24
1	17	17	0.112	0.006	0.036	24
1	18	18	0.069	0.006	0.022	24
1	19	19	0.048	0.012	0.034	13
1	20	20	0.128	0.015	0.047	24
1	21	21	0.158	0.012	0.048	24
1	22	22	0.119	0.012	0.056	23
1	23	23	0.065	0.003	0.015	24
1	24	24	0.045	0.005	0.016	22
1	25	25	0.020	0.003	0.008	24
1	26	26	0.066	0.003	0.024	24
1	27	27	0.044	0.001	0.008	24
1	28	28	0.034	0.001	0.014	24
1	29	29	0.039	0.002	0.012	24
1	30	30	0.067	0.001	0.024	24
1	31	31	0.096	0.009	0.036	24
2	1	32	0.049	0.006	0.020	20
2	2	33	0.128	0.006	0.045	24
2	3	34	0.091	0.018	0.038	10
2	4	35				0
2	5	36	0.086	0.003	0.018	13
2	6	37	0.234	0.007	0.068	24
2	7	38	0.208	0.006	0.050	24
2	8	39	0.040	0.001	0.013	24
2	9	40	0.052	0.001	0.018	24
2	10	41	0.017	0.001	0.005	24
2	11	42	0.043	0.006	0.017	24
2	12	43	0.214	0.004	0.034	24
2	13	44	0.004	0.001	0.001	24
2	14	45	0.010	0.001	0.004	24
2	15	46	0.104	0.001	0.033	22
2	16	47	0.131	0.007	0.062	24
2	17	48	0.052	0.007	0.021	24
2	18	49	0.037	0.003	0.012	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
2	19	50	0.085	0.016	0.031	24
2	20	51	0.091	0.012	0.027	24
2	21	52	0.166	0.002	0.051	24
2	22	53	0.124	0.007	0.040	24
2	23	54	0.110	0.006	0.033	24
2	24	55	0.193	0.028	0.060	24
2	25	56	0.192	0.006	0.052	24
2	26	57	0.165	0.012	0.053	24
2	27	58	0.042	0.001	0.012	24
2	28	59	0.037	0.008	0.016	24
3	1	60	0.129	0.005	0.052	21
3	2	61	0.145	0.001	0.049	24
3	3	62	0.064	0.008	0.025	24
3	4	63	0.063	0.002	0.019	24
3	5	64	0.058	0.006	0.028	22
3	6	65	0.012	0.004	0.008	24
3	7	66	0.049	0.003	0.014	24
3	8	67	0.128	0.024	0.060	24
3	9	68	0.296	0.015	0.092	24
3	10	69	0.250	0.002	0.069	24
3	11	70	0.113	0.008	0.045	24
3	12	71	0.063	0.005	0.015	24
3	13	72	0.011	0.001	0.006	24
3	14	73	0.079	0.014	0.041	24
3	15	74	0.059	0.001	0.016	22
3	16	75	0.048	0.002	0.013	24
3	17	76	0.059	0.006	0.019	24
3	18	77	0.014	0.003	0.006	24
3	19	78	0.121	0.005	0.038	24
3	20	79	0.066	0.010	0.027	24
3	21	80	0.058	0.007	0.023	24
3	22	81	0.030	0.001	0.011	24
3	23	82	0.010	0.001	0.004	24
3	24	83	0.010	0.001	0.004	24
3	25	84	0.065	0.005	0.014	24
3	26	85	0.040	0.008	0.022	24
3	27	86	0.108	0.010	0.051	24
3	28	87	0.016	0.007	0.011	24
3	29	88	0.019	0.017	0.018	8
3	30	89	0.057	0.051	0.054	3
3	31	90	0.136	0.003	0.039	24
4	1	91	0.035	0.004	0.015	24
4	2	92	0.108	0.003	0.028	24
4	3	93	0.092	0.001	0.021	22
4	4	94	0.037	0.001	0.016	24
4	5	95	0.003	0.001	0.001	24
4	6	96	0.031	0.001	0.013	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
4	7	97	0.109	0.003	0.025	24
4	8	98	0.035	0.004	0.013	24
4	9	99	0.051	0.001	0.013	24
4	10	100	0.026	0.001	0.007	24
4	11	101	0.029	0.001	0.013	21
4	12	102	0.152	0.004	0.032	24
4	13	103	0.032	0.001	0.006	24
4	14	104	0.068	0.001	0.018	24
4	15	105	0.041	0.004	0.016	24
4	16	106	0.044	0.001	0.008	24
4	17	107	0.024	0.001	0.012	24
4	18	108	0.048	0.001	0.019	24
4	19	109	0.080	0.001	0.023	24
4	20	110	0.068	0.001	0.021	24
4	21	111	0.040	0.001	0.017	24
4	22	112	0.021	0.001	0.008	24
4	23	113	0.036	0.001	0.012	24
4	24	114	0.066	0.004	0.026	24
4	25	115	0.065	0.001	0.021	21
4	26	116	0.042	0.001	0.013	22
4	27	117	0.044	0.001	0.009	24
4	28	118	0.017	0.001	0.008	24
4	29	119	0.006	0.001	0.001	24
4	30	120	0.023	0.001	0.009	24
5	1	121	0.012	0.001	0.007	24
5	2	122	0.140	0.004	0.034	20
5	3	123	0.033	0.001	0.007	24
5	4	124	0.085	0.002	0.019	24
5	5	125	0.069	0.003	0.012	24
5	6	126	0.018	0.005	0.009	24
5	7	127	0.046	0.004	0.013	24
5	8	128	0.009	0.001	0.006	24
5	9	129	0.007	0.001	0.003	24
5	10	130	0.080	0.001	0.019	22
5	11	131	0.023	0.002	0.007	24
5	12	132	0.029	0.001	0.012	24
5	13	133	0.049	0.007	0.020	24
5	14	134	0.040	0.001	0.011	24
5	15	135	0.060	0.001	0.012	24
5	16	136	0.022	0.001	0.006	24
5	17	137	0.021	0.003	0.010	24
5	18	138	0.065	0.004	0.019	24
5	19	139	0.019	0.003	0.009	24
5	20	140	0.013	0.004	0.007	24
5	21	141	0.104	0.004	0.021	24
5	22	142	0.082	0.006	0.022	24
5	23	143	0.053	0.004	0.020	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
5	24	144	0.109	0.005	0.034	20
5	25	145	0.012	0.001	0.006	24
5	26	146	0.024	0.003	0.007	24
5	27	147	0.010	0.001	0.005	24
5	28	148	0.017	0.001	0.005	24
5	29	149	0.046	0.002	0.010	24
5	30	150	0.092	0.002	0.018	24
5	31	151	0.081	0.003	0.020	24
6	1	152	0.136	0.001	0.019	24
6	2	153	0.022	0.001	0.004	24
6	3	154	0.016	0.003	0.007	24
6	4	155	0.063	0.004	0.014	24
6	5	156	0.073	0.003	0.016	24
6	6	157	0.027	0.004	0.009	24
6	7	158	0.044	0.005	0.014	22
6	8	159	0.044	0.004	0.011	24
6	9	160	0.029	0.005	0.012	24
6	10	161	0.031	0.004	0.009	24
6	11	162	0.016	0.004	0.007	24
6	12	163	0.016	0.005	0.007	24
6	13	164	0.011	0.003	0.006	23
6	14	165	0.040	0.005	0.012	24
6	15	166	0.041	0.004	0.014	24
6	16	167	0.026	0.004	0.009	24
6	17	168	0.042	0.004	0.016	24
6	18	169	0.045	0.008	0.027	9
6	19	170	0.034	0.004	0.013	12
6	20	171	0.049	0.005	0.017	24
6	21	172	0.064	0.001	0.016	21
6	22	173	0.057	0.005	0.013	24
6	23	174	0.051	0.004	0.020	22
6	24	175	0.038	0.004	0.012	24
6	25	176	0.088	0.004	0.028	24
6	26	177	0.097	0.008	0.034	24
6	27	178	0.046	0.007	0.020	24
6	28	179	0.069	0.004	0.016	24
6	29	180	0.105	0.004	0.022	24
6	30	181	0.054	0.005	0.016	24
7	1	182	0.012	0.001	0.007	24
7	2	183	0.140	0.004	0.034	20
7	3	184	0.033	0.001	0.007	24
7	4	185	0.085	0.002	0.019	24
7	5	186	0.069	0.003	0.012	24
7	6	187	0.018	0.005	0.009	24
7	7	188	0.046	0.004	0.013	24
7	8	189	0.009	0.001	0.006	24
7	9	190	0.007	0.001	0.003	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

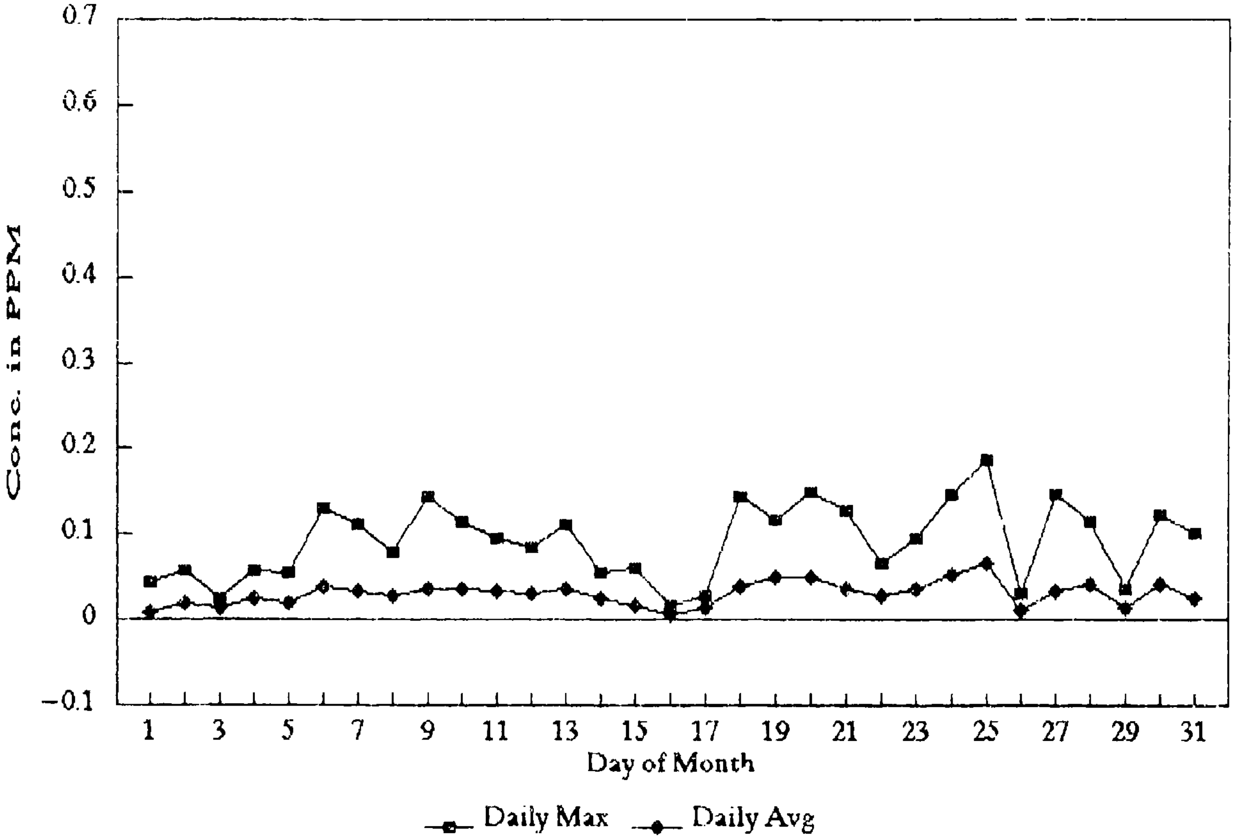
Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
7	10	191	0.080	0.001	0.019	22
7	11	192	0.023	0.002	0.007	24
7	12	193	0.029	0.001	0.012	24
7	13	194	0.049	0.007	0.020	24
7	14	195	0.040	0.001	0.011	24
7	15	196	0.060	0.001	0.012	24
7	16	197	0.022	0.001	0.006	24
7	17	198	0.021	0.003	0.010	24
7	18	199	0.065	0.004	0.019	24
7	19	200	0.019	0.003	0.009	24
7	20	201	0.013	0.004	0.007	24
7	21	202	0.104	0.004	0.021	24
7	22	203	0.082	0.006	0.022	24
7	23	204	0.053	0.004	0.020	24
7	24	205	0.109	0.005	0.034	20
7	25	206	0.012	0.001	0.006	24
7	26	207	0.024	0.003	0.007	24
7	27	208	0.010	0.001	0.005	24
7	28	209	0.017	0.001	0.005	24
7	29	210	0.046	0.002	0.010	24
7	30	211	0.092	0.002	0.018	24
7	31	212	0.081	0.003	0.020	24
8	1	213	0.078	0.007	0.025	24
8	2	214	0.050	0.004	0.024	22
8	3	215	0.066	0.007	0.020	22
8	4	216	0.061	0.006	0.019	24
8	5	217	0.016	0.006	0.009	24
8	6	218	0.038	0.006	0.013	24
8	7	219	0.071	0.005	0.024	24
8	8	220	0.097	0.004	0.033	24
8	9	221	0.079	0.006	0.022	24
8	10	222	0.081	0.006	0.034	24
8	11	223	0.031	0.007	0.013	24
8	12	224	0.040	0.007	0.018	24
8	13	225	0.048	0.011	0.026	24
8	14	226	0.073	0.006	0.021	24
8	15	227	0.042	0.008	0.021	24
8	16	228	0.062	0.006	0.024	20
8	17	229	0.057	0.006	0.024	24
8	18	230	0.066	0.006	0.027	24
8	19	231	0.076	0.005	0.018	17
8	20	232	0.076	0.007	0.022	16
8	21	233	0.090	0.006	0.030	24
8	22	234	0.084	0.006	0.032	24
8	23	235	0.071	0.005	0.021	24
8	24	236	0.069	0.005	0.021	24
8	25	237	0.059	0.005	0.020	24

Nitrogen Oxides (NOx) Daily Data in
parts per million (ppm) for FY90

Calendar Month	Calendar Day	Julian Day	Daily Max	Daily Min	Daily Mean	Valid Hours
8	26	238	0.062	0.004	0.018	24
8	27	239	0.058	0.005	0.023	24
8	28	240	0.060	0.004	0.022	24
8	29	241	0.075	0.006	0.027	24
8	30	242	0.067	0.006	0.020	22
8	31	243	0.061	0.006	0.022	24
9	1	244	0.049	0.009	0.016	24
9	2	245	0.035	0.007	0.015	24
9	3	246	0.030	0.006	0.016	24
9	4	247	0.068	0.008	0.022	24
9	5	248	0.096	0.006	0.025	24
9	6	249	0.109	0.008	0.028	24
9	7	250	0.087	0.006	0.029	24
9	8	251	0.057	0.007	0.023	24
9	9	252	0.057	0.006	0.021	24
9	10	253	0.083	0.007	0.027	24
9	11	254	0.105	0.005	0.025	24
9	12	255	0.138	0.006	0.026	24
9	13	256	0.066	0.005	0.016	22
9	14	257	0.060	0.010	0.026	10
9	15	258	0.011	0.005	0.007	11
9	16	259	0.039	0.005	0.010	24
9	17	260	0.075	0.003	0.019	24
9	18	261	0.053	0.005	0.019	24
9	19	262	0.117	0.006	0.027	24
9	20	263	0.072	0.006	0.022	24
9	21	264	0.117	0.005	0.022	24
9	22	265	0.111	0.006	0.025	24
9	23	266	0.137	0.007	0.026	24
9	24	267	0.100	0.006	0.031	24
9	25	268	0.059	0.007	0.022	24
9	26	269	0.090	0.007	0.026	24
9	27	270	0.126	0.005	0.040	22
9	28	271	0.032	0.012	0.018	24
9	29	272	0.016	.005	0.008	24
9	30	273	0.095	.005	0.037	24

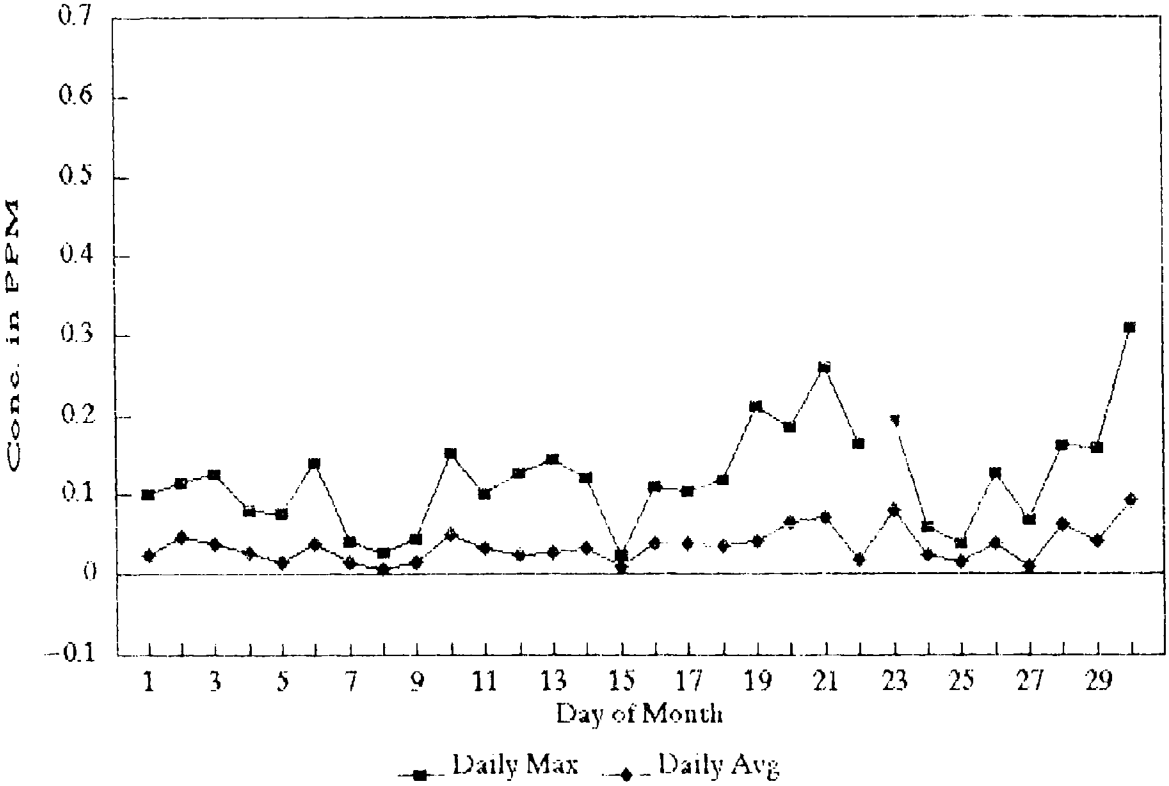
Nitrogen Oxides

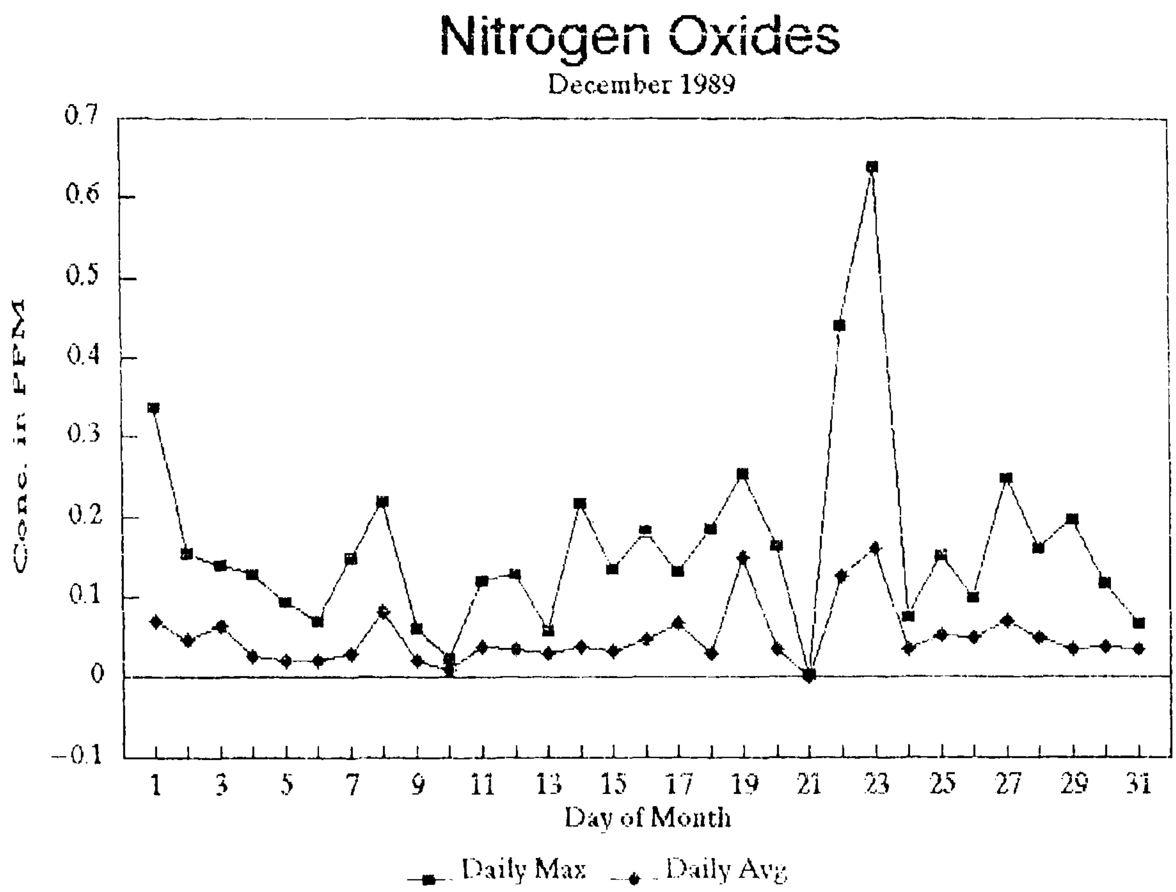
October 1989



Nitrogen Oxides

November 1989




Nitrogen Oxides
December 1989
Conc. in PPM
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0.6
0.5
0.4
0.3
0.2
0.1
0
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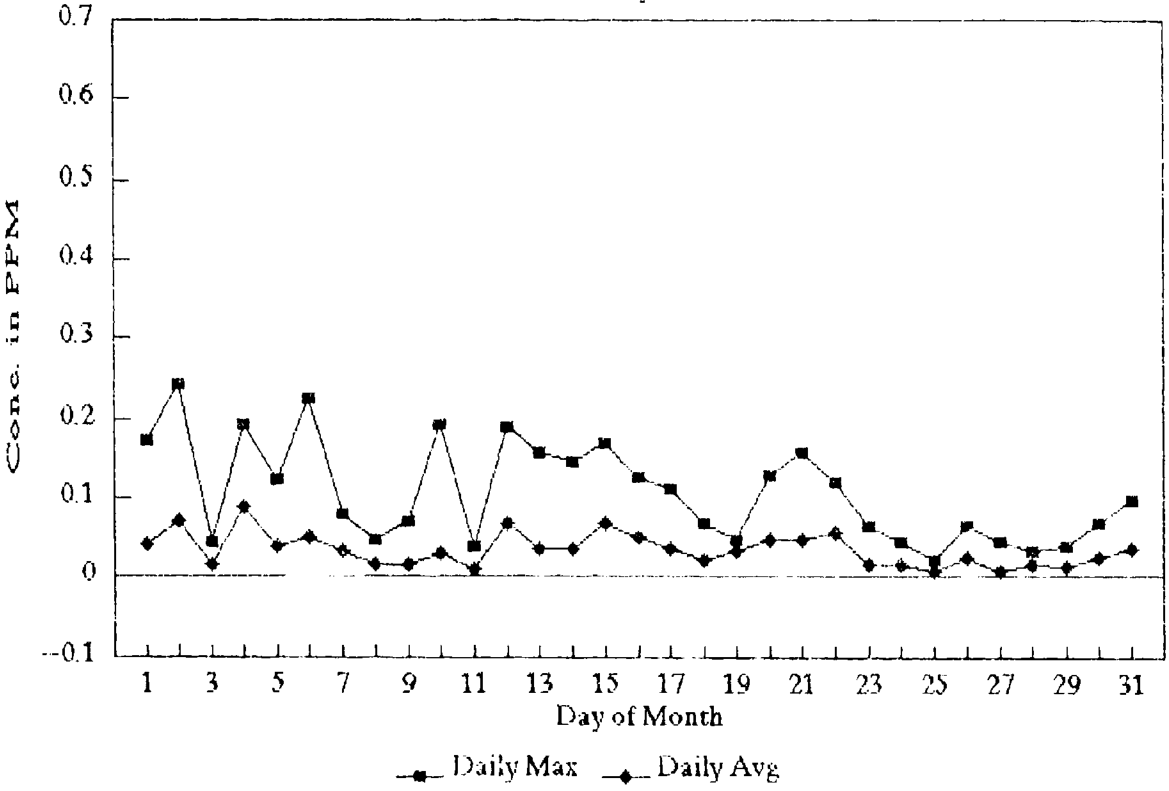
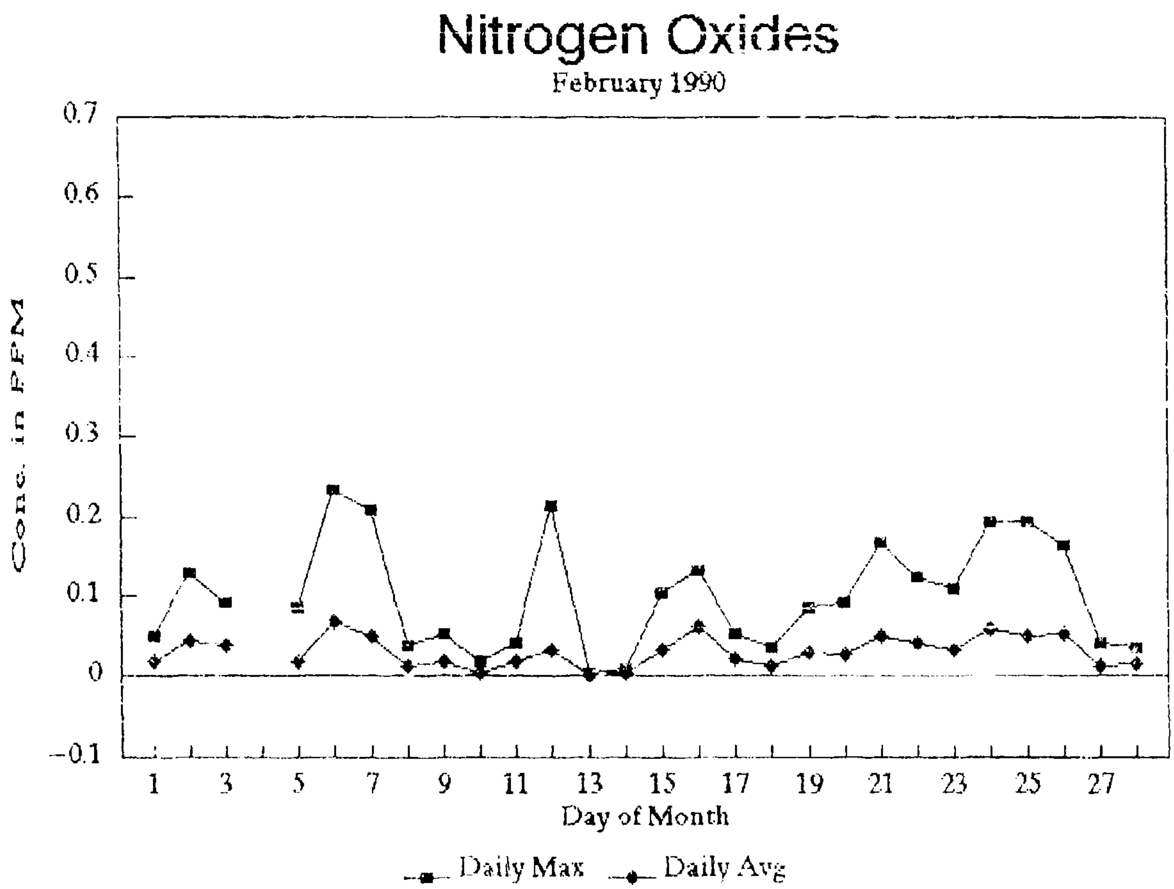
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

Nitrogen Oxides

January 1990




Nitrogen Oxides
February 1990
Conc. in PPM
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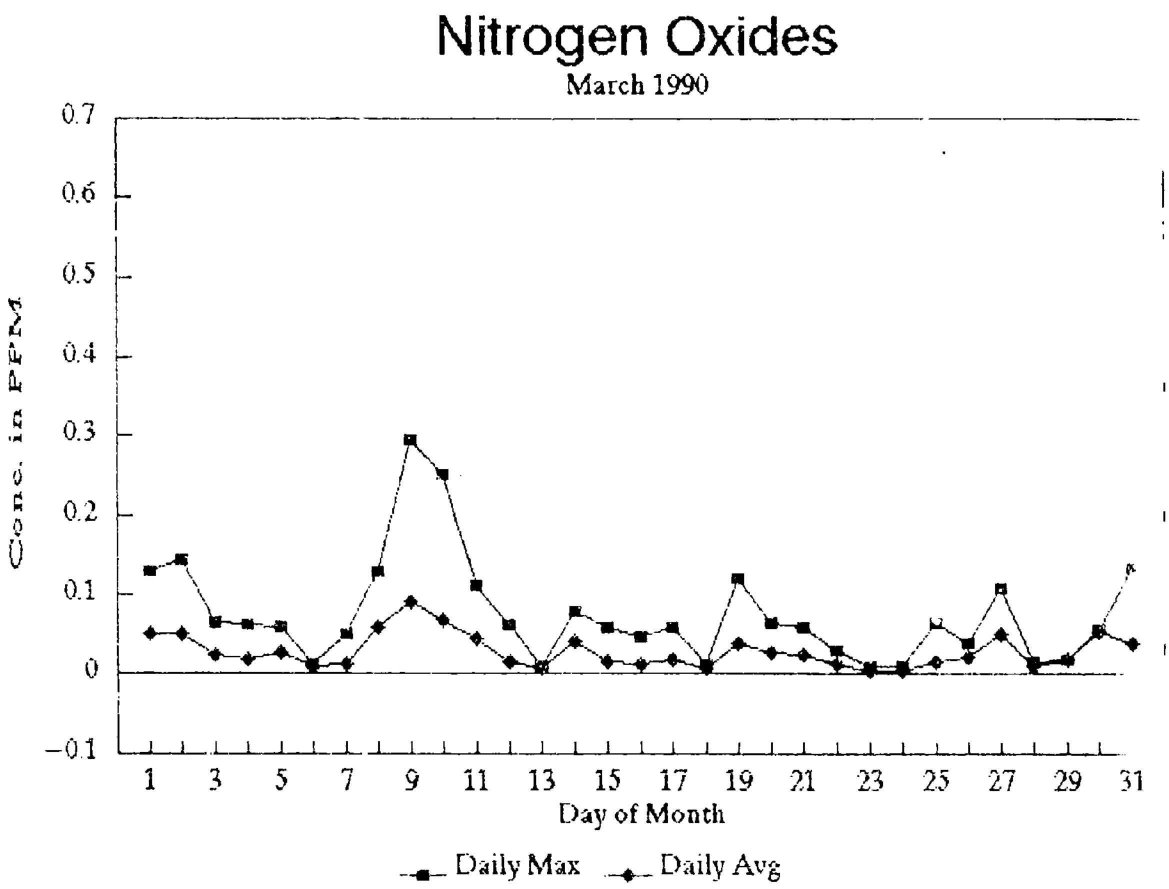
0.5
0.4
0.3
0.2
0.1
0
-0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
Day of Month
Daily Max
Daily Avg



Nitrogen Oxides
March 1990
Conc. in PPM
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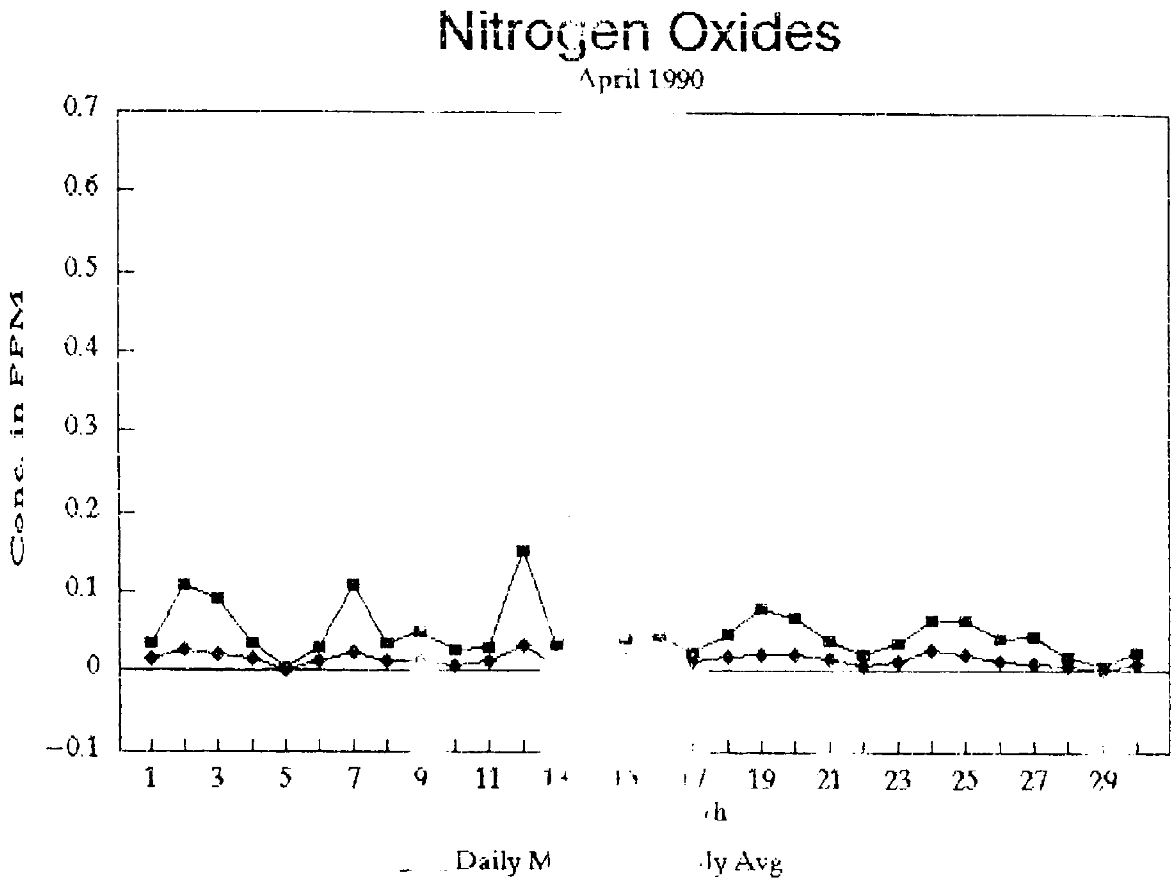
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg


Nitrogen Oxides
April 1990
Conc. in PPM
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0.6
0.5
0.4
0.3
0.2
0.1
0
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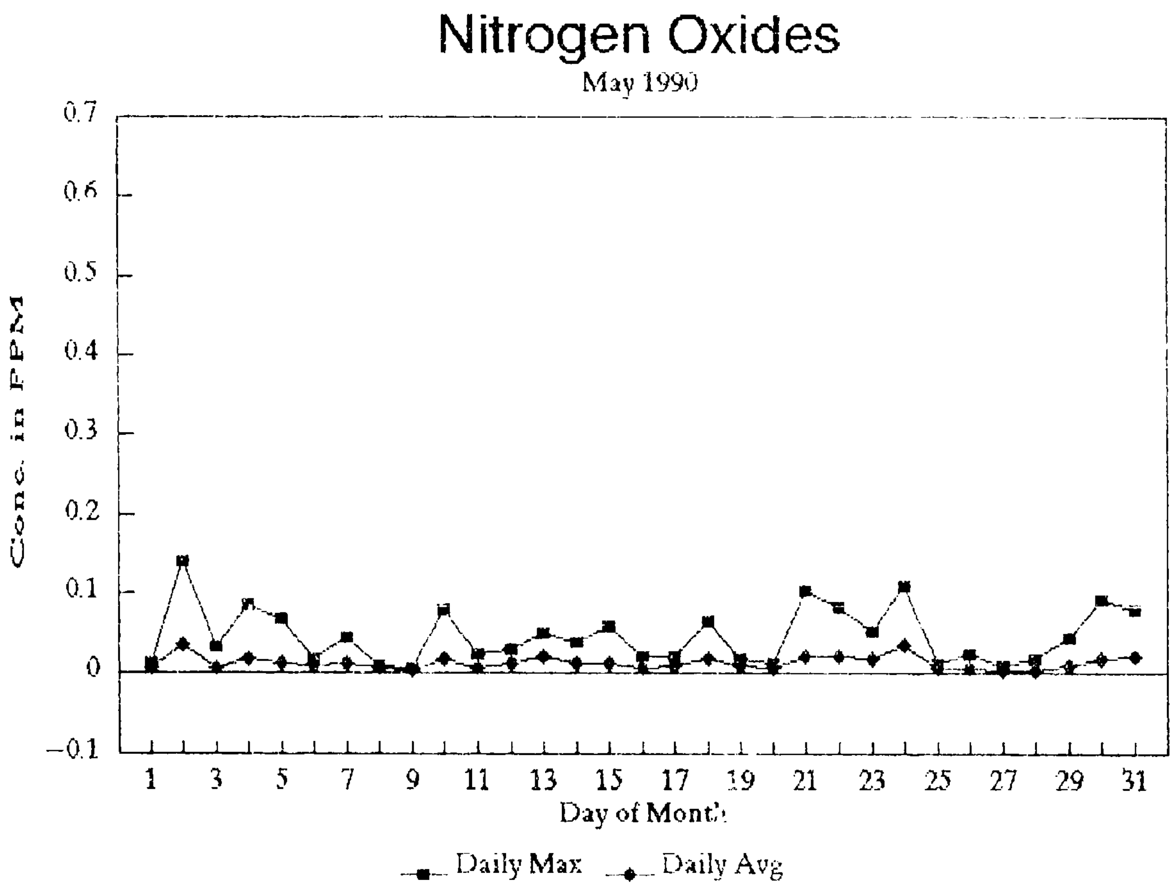
1
3
5
7
9
11
19
21
23
25
27
29
Daily M
ly Avg



Nitrogen Oxides
May 1990
Conc. in PPM
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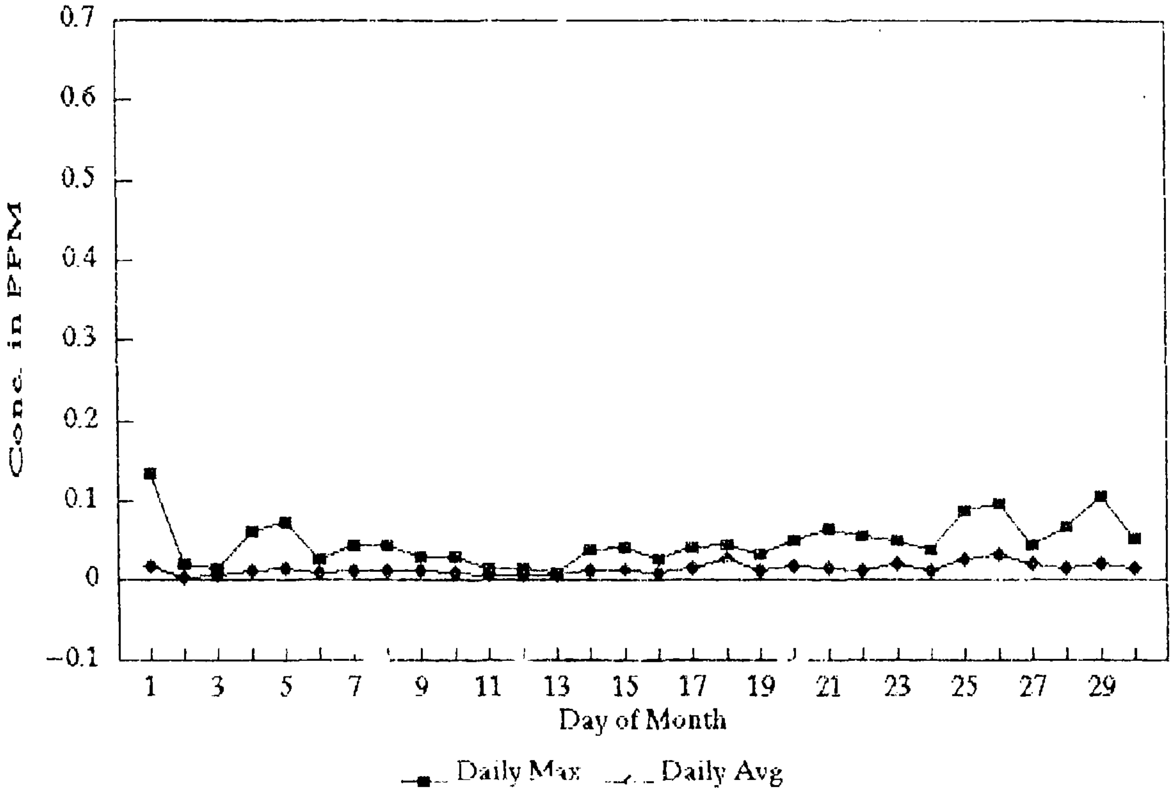
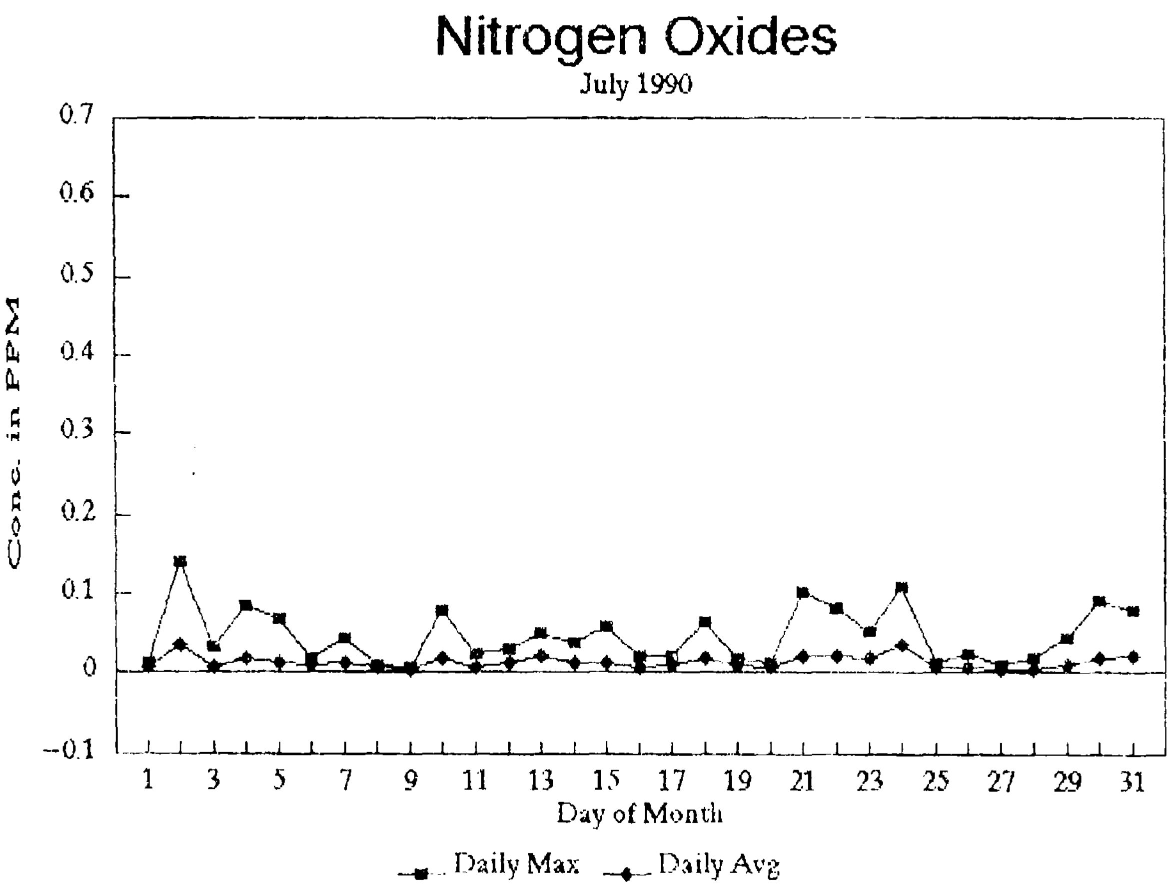
0.6
0.5
0.4
0.3
0.2
0.1
0
−0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

Nitrogen Oxides

June 1990




Nitrogen Oxides
July 1990
Conc. in PPM
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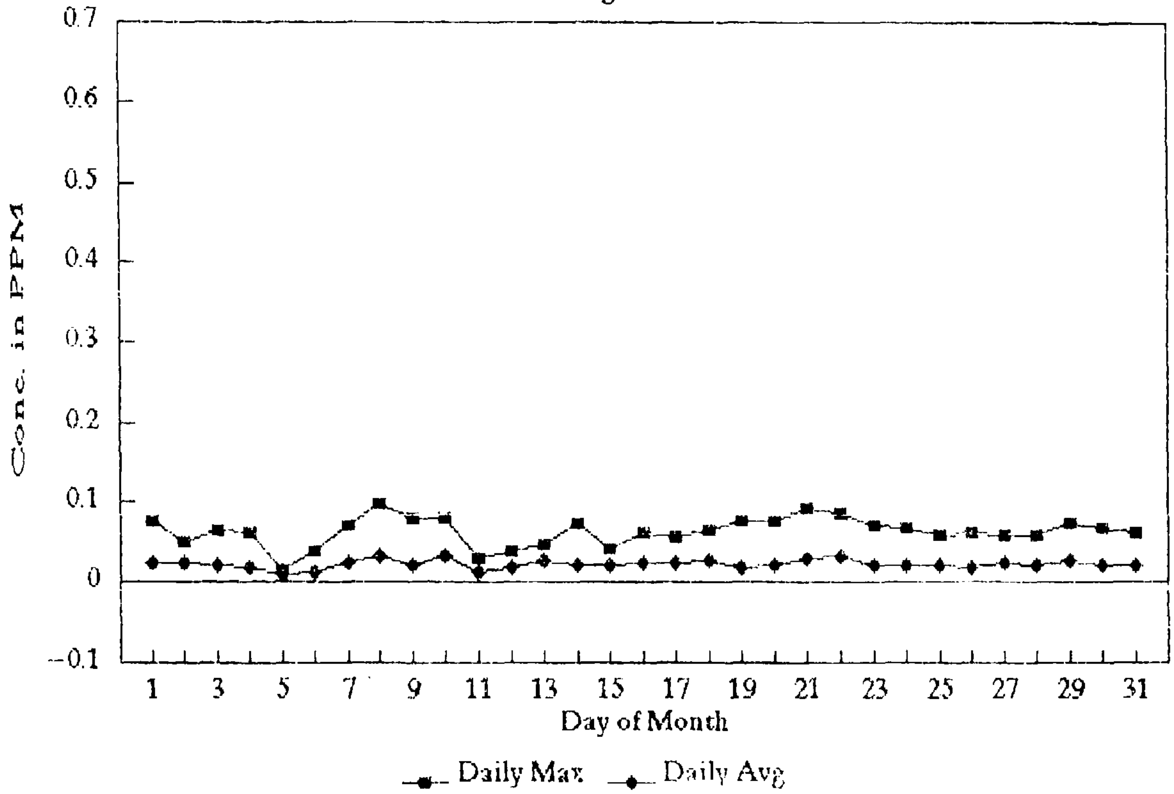
0.6
0.5
0.4
0.3
0.2
0.1
0
-0.1
1
3
5
7
9
11
13
15
17
19
21
23
25
27
29
31
Day of Month
Daily Max
Daily Avg

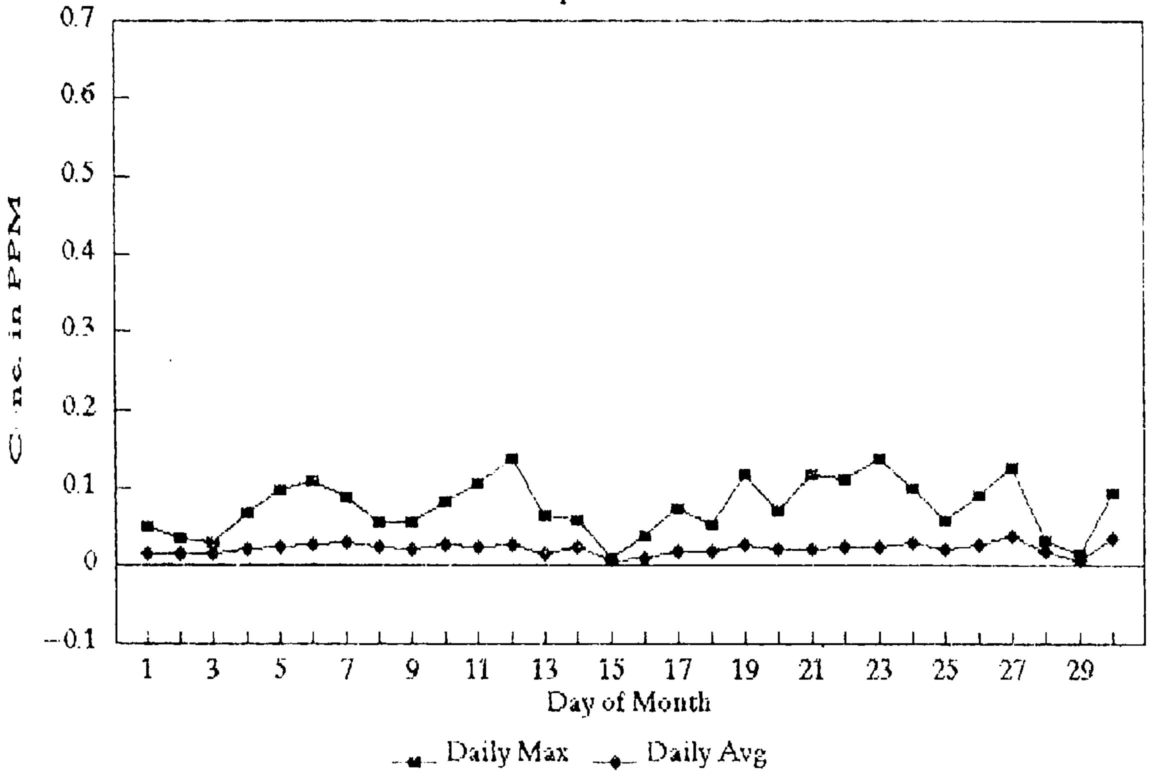
Nitrogen Oxides

August 1990



Nitrogen Oxides

September 1990



APPENDIX K

ISC AND INPUFF2 EPA MODEL DESCRIPTION

K1 ISC EPA Model Description

K2 INPUFF2

APPENDIX J

METEOROLOGICAL DATA AND JOINT FREQUENCY DISTRIBUTION

J1 Meteorological Data

(on diskette file APPJ1.TXT; archived with PKZIP)

J2 Joint Frequency Distribution
(on diskette file APPJ2.TXT)

APPENDIX K

ISC AND INPUFF2 EPA MODEL DESCRIPTION

K.1 ISC EPA Model Description

ISC AND INPUFF2 EPA MODEL DESCRIPTIONS

Description of Industrial Source Complex Model (ISC)

Reference: Environmental Protection Agency, 1986. Industrial Source Complex (ISC) Dispersion Model User's Guide, Second Edition, Volumes 1 and 2. Publication Nos. EPA-450/4-86-005a, and -005b. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Availability: This model is available as part of UNAMAP (Version 6). The computer code is available on magnetic tape from:

Computer Products
National Technical Information Service
U.S. Department of Commerce
Springfield, Virginia 22161

Phone (703) 487-4650

Abstract: The ISC model is a steady-state Gaussian plume model which can be used to assess pollutant concentrations from a wide variety of sources associated with an industrial source complex. This model can account for settling and dry deposition of particulates, downwash area, line and volume sources, plume rise as a function of downwind distance, separation of point sources, and limited terrain adjustment. It operates in both long- and short-term modes.

a. Recommendations for Regulatory Use

ISC is appropriate for the following applications:

- industrial source complexes;
- rural or urban areas;
- flat or rolling terrain;
- transport distances less than 50 kilometers; and
- one hour to annual averaging times.

The following options should be selected for regulatory applications:

- For short term modeling, set the regulatory "default option" (ISW(28)=1), which automatically selects stack tip downwash, final plume rise, buoyancy induced dispersion (BID), the vertical potential temperature gradient, a treatment for calms,

the appropriate wind profile exponents, and the appropriate value for pollutant half-life; set rural option (ISW(20)=0) or urban option (ISW(20)=3); and set the concentration option (ISW(1)=1).

- For long term modeling, set the regulatory "default option" (ISW(22)=0), which automatically selects stack tip downwash, final plume rise, buoyancy-induced dispersion (BID), the vertical potential temperature gradient, the appropriate wind profile exponents, and the appropriate pollutant value for half-life; set rural option (ISW(9)=3) or urban option (ISW(9)=4); and set the concentration option (ISW(1)=1).

b. Input Requirements

Source data: location, emission rate, physical stack height, stack gas exit velocity, stack inside diameter, and stack gas temperature. Optional inputs include source elevation, building dimensions, particle size distribution with corresponding settling velocities, and surface reflection coefficients.

Meteorological data: ISCST requires hourly surface weather data from the preprocessor program RAMMET, which provides hourly stability class, wind direction, wind speed, temperature, and mixing height. For ISCLT, input includes stability wind rose (STAR deck), average afternoon mixing height, average morning mixing height, and average air temperature.

Receptor data: coordinates and optional ground elevation for each receptor.

c. Output

Printed output options include:

- program control parameters, source data and receptor data;
- tables of hourly meteorological data for each specified day;
- "N"-day average concentration or total deposition calculated at each receptor for any desired combinations of sources;

- concentration or deposition values calculated for any desired combinations of sources at all receptors for any specified day or time period within the day;

- tables of highest and second-highest concentration or deposition values calculated at each receptor for each receptor for each specified time period during an "N"-day period for any desired combinations of sources; and

- tables of the maximum 50 concentration or deposition values; calculated for any desired combinations of sources for each specified time period.

d. Type of Model

ISC is a Gaussian plume model.

e. Pollutant Types

ISC may be used to model primary pollutants. Settling and deposition are treated.

f. Source-Receptor Relationships

ISC applies user-specified locations for point, line, area and volume sources, and user-specified receptor locations or receptor rings. Receptors are assumed to be at ground level, and must be at elevations not exceeding stack height.

Actual separation between source-receptor pair is used.

g. Plume Behavior

ISC uses Briggs (1969, 1971, 1975) plume rise equations for final rise.

Stack tip downwash equation from Briggs (1974) and building downwash (Huber and Snyder, 1976) are used.

For rolling terrain (terrain not above stack height), plume centerline is horizontal at height of final rise above source.

Fumigation is not treated.

h. Horizontal Winds

Constant, uniform (steady-state) wind is assumed for each hour.

Straight line plume transport is assumed to all downwind distances.

Separate wind speed profile exponents (EPA, 1980) for both rural and urban cases are used.

An optional treatment for calm winds is included for short term modeling.

i. Vertical Wind Speed

Vertical wind speed is assumed equal to zero.

j. Horizontal Dispersion

Rural dispersion coefficients from Turner (1969) are used, with no adjustments for surface roughness or averaging time.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

k. Vertical Dispersion

Rural dispersion coefficients from Turner (1969) are used, with no adjustments for surface roughness.

Urban dispersion coefficients from Briggs (Gifford, 1976) are used.

Buoyancy induced dispersion (Pasquill, 1976) is included.

Six stability classes are used.

Mixing height is accounted for with multiple reflections until the vertical plume standard deviation equals 1.6 times the mixing height; uniform vertical mixing is assumed beyond that point.

Perfect reflection is assumed at the ground.

l. Chemical Transformation

Chemical transformations are treated using exponential decay. Time constant is input by the user.

m. Physical Removal

Settling and dry deposition of particulates are treated.

n. Evaluation Studies

Bowers, J. F., and A. J. Anderson, 1981. An Evaluation Study for the Industrial Source Complex (ISC) Dispersion Model, EPA Publication No. EPA-450/4-81-002. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Bowers, J. F., A. J. Anderson, W. R. Hargraves, 1982. Tests of the Industrial Source Complex (ISC) Dispersion Model at the Armco Middletown, Ohio Steel Mill, EPA Publication No. EPA-450/4-82-006. U.S. Environmental Protection Agency, Research Triangle Park, NC.

Scire, J. S., and L. L. Schulman, 1981 Evaluation of the BLP and ISC Models with SF6 Tracer Data and SO2 Measurements at Aluminum Reduction Plants. Air Pollution Control Association Specialty Conference on Dispersion Modeling for Complex Sources, St. Louis, MO.

K2 INPUFF2

Description of INPUFF2.0

[Extracted and adapted from INPUFF2.0 User's Guide, August 1986 Report EPA/600-8-86/024 U.S. EPA, Research Triangle Park, N.C.]

INTRODUCTION

INPUFF is a Gaussian integrated puff model with a wide range of applications. The implied modeling scale is capable of addressing the accidental release of a substance over several minutes, or of modeling the more typical continuous plume from a stack. [A requirement for] assistance in modeling the air quality downwind of incineration ships prompted the development of an integrated puff model. INPUFF is, therefore, capable of simulating moving point sources as well as stationary sources.

Computations in INPUFF can be made for multiple point sources at up to 100 receptor locations. In practice, however, the number of receptor locations should be kept to a minimum to avoid excessive run time. INPUFF is primarily designed to model a single event during which one meteorological transition period may occur, such as, going from afternoon to evening conditions. Up to 144 separate meteorological periods of the same length may be used to characterize the meteorology during the event; this provides a time resolution that ranges from minutes to an hour. The user has the option of specifying the wind field for each meteorological period at up to 100 grid locations or allowing the model to default to a homogeneous wind field.

Three dispersion algorithms are used within INPUFF for dispersion downwind of the source. The user may select the Pasquill-Gifford (P-G) scheme (Turner, 1970) or the on-site scheme (Irwin, 1983) for short travel time dispersion. The on-site scheme, so named because it requires specification of the variances of the vertical and lateral wind direction, is a synthesis of work performed by Draxler (1976) and Cramer (1976). The long travel time scheme is the third dispersion algorithm in which the growth of the puff becomes proportional to the square root of time. Optionally, the user can incorporate his own subroutine for estimating atmospheric dispersion.

INPUFF utilizes the deposition algorithms given by Rao (1982). In the limit when pollutant settling and dry deposition velocities are zero, these expressions reduce to the Gaussian diffusion algorithms.

* * * *

FEATURES AND LIMITATIONS

* * * *

The model possesses the following features which increase its flexibility and range of application:

- Optional stack-tip downwash,
- Wind speed extrapolated to release height,
- Temporally variable source characteristics,
- Temporally and spatially variable wind field,
- Up to 100 receptors,
- Some consideration of terrain effects through the wind field,
- Optional buoyancy induced dispersion,
- Optional deposition and settling,
- Optional user-supplied dispersion parameters,
- Optional user-supplied plume rise, and
- Optional graphics display.

The implied modeling scale is from tens of meters to tens of kilometers. INPUFF is capable of addressing the accidental release of a substance over a short time period, or of modeling the more typical continuous plume from a stack.

Although INPUFF has several advantages over its continuous plume counterparts, it still retains several limitations, including:

- Wind direction constant with height,
- No consideration of chemical reactions,
- No explicit treatment of complex terrain,
- No consideration of building wake or cavity effects.

BASIS FOR INPUFF

GAUSSIAN PUFF METHODOLOGY

A graphical representation of the INPUFF model is given in Figure 1. Here the first puff (the puff with the longest trajectory) was first exposed to east-southeast winds, followed by slightly

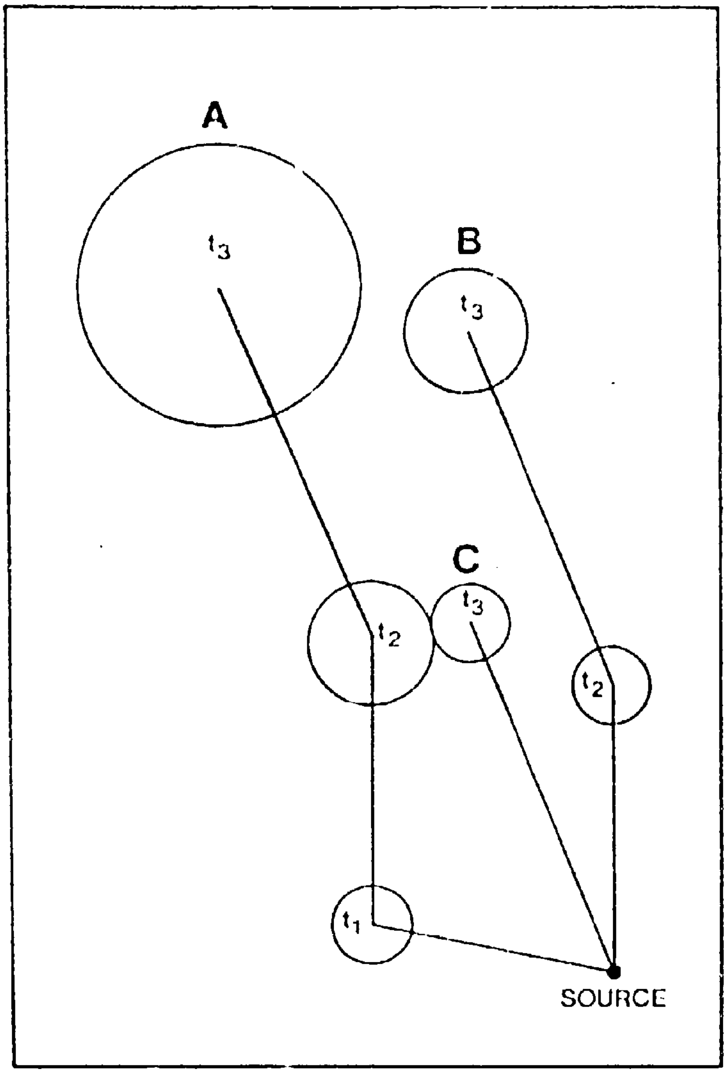
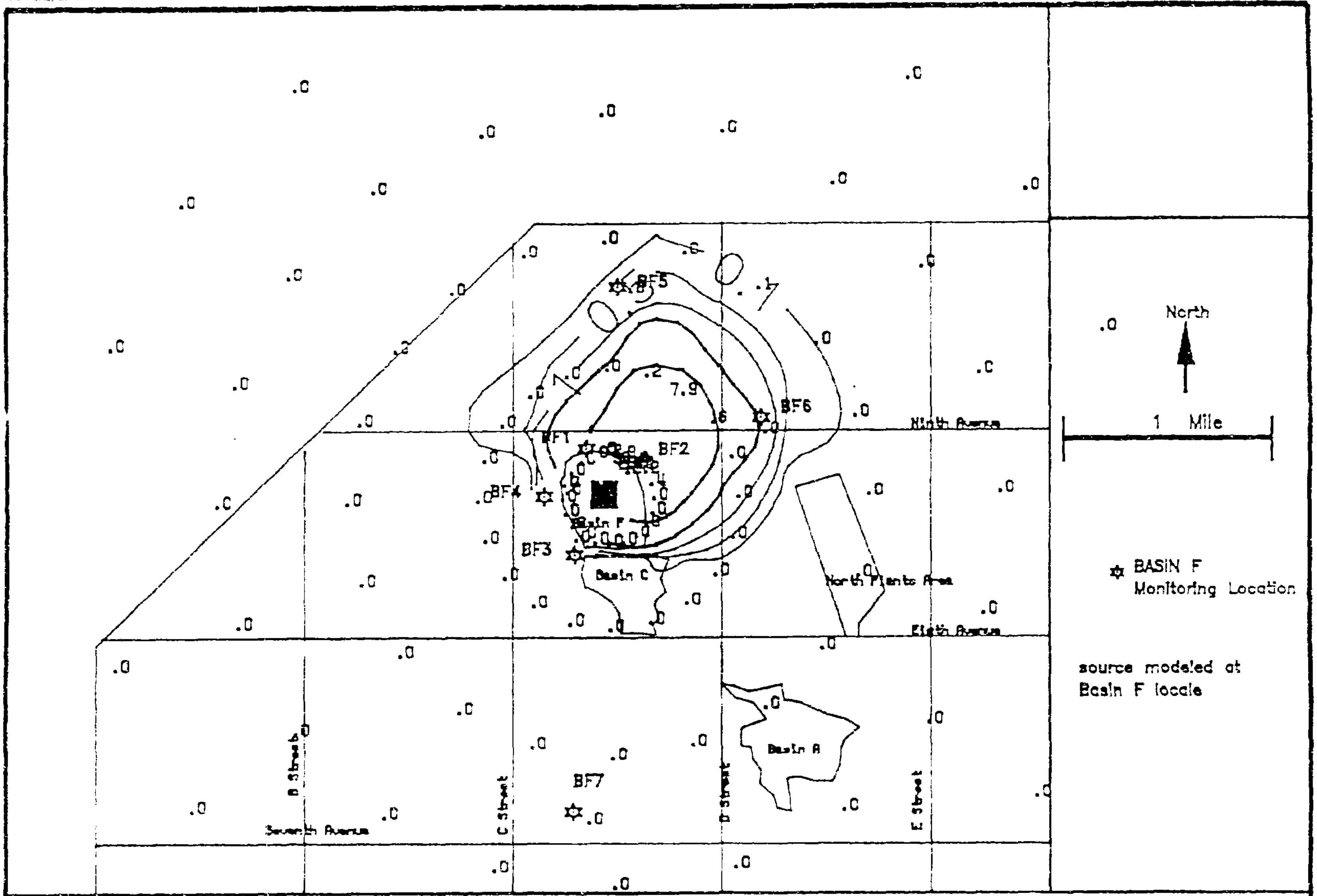


Figure 1. Gaussian puff model.



Prepared for: Program Manager's Office for
Rocky Mountain Arsenal Cleanup
Aberdeen Proving Ground, Maryland

FIGURE 2 PUFF x/Q DISPERSION June 16 0700

Prepared by: R.L. Stollar & Associates Inc., Envirosphere Company

stronger winds from the south and the south-southeast. The second puff was released at the time the winds shifted from east-southeast to south. The third puff was released when winds were from the south-southeast. The stability conditions need not be equal for the various time steps, though in the figure, stability is shown to be fairly constant with time (i.e., the rate of puff growth is constant over the time frame). INPUFF assumes $\sigma_x = \sigma_y$, thus puffs remain circular throughout their lifetime. Puffs A, B, and C represent the location of the three emitted puffs at time t_3.

In Gaussian-puff algorithms, source emissions are treated as a series of puffs emitted into the atmosphere. Constant conditions of wind and atmospheric stability are assumed during a time interval. The diffusion parameters are functions of travel time. During each time step, the puff centers are determined by the trajectory and the in-puff distributions are assumed to be Gaussian. thus, each puff has a center and a volume which are determined separately be the mean wind, atmospheric stability, and travel time. [An example of a PUFF Model 15-minute time-step interval used in the RMA Basin F remedial operations is shown in Figure 2.]

PLUME RISE

Plume rise is calculated using the methods of Briggs (see Section 5). Although plume rise from point sources is usually dominated by buoyancy, plume rise due to momentum is also considered. Building downwash, and gradual plume rise are not treated by INPUFF.

Stack-tip downwash (optional) can be considered using the methods of Briggs. In such an analysis, a height incr ent is deducted from the physical stack height before momentum or buoyancy rise is determined. of this option primarily affects computations from stacks having small ratios of exit velocity to wind speed.

DISPERSION ALGORITHMS

Three dispersion algorithms are used within INPUFF for dispersion downwind of the source:

- P-G scheme as discussed by Turner (1970),
- On-site scheme formulated by Irwin (1983), and
- Long travel time scheme.

The user has the option of choosing either the P-G or the on-site algorithm (for short travel time dispersion) and specifying when the long travel time dispersion parameters are to be implemented. Optionally, a user-supplied subroutine to estimate dispersion can be used.

Dispersion downwind of a source, as characterized by the P-G scheme, is a function of stability class and downwind distance. Stability categories are commonly specified in terms of wind speed and solar radiation. The on-site dispersion algorithm is a synthesis of Draxler's (1976) and Cramer's (1976) ideas and requires specification of the variances of the vertical and lateral wind directions. The third dispersion scheme is used in conjunction with the other two and is for long travel times in which the growth of the puff is proportional to the square root of time.

SETTLING AND DRY DEPOSITION

Rao (1982) gave analytical solutions of a gradient-transfer model for dry deposition of pollutants from a plume. His solutions treat gravitational settling and dry deposition of pollutants in a physically realistic manner, and are subject to the same basic assumptions and limitations associated with Gaussian plume models. His equations for deposition and settling were incorporated in several EPA air quality models including PAL-DS (Rao and Snodgrass, 1982). The equations used in INPUFF are the same as those used in PAL-DS except they are cast in terms of travel time instead of wind speed and downwind distance.

DATA-REQUIREMENTS CHECKLIST

INPUFF requires data on user options, grid dimensions, sources, meteorology, receptors, and plotter control. The user must indicate whether the following options are to be employed:

- Stack-tip downwash,
- Source update,
- User-supplied wind field,
- Intermediate concentration output,
- Puff information output,
- Buoyancy induced dispersion,
- User-supplied dispersion algorithm, and
- User-supplied plume rise algorithm.

The dimension of the modeling grid must be specified. If the user-supplied wind field option is implemented, then the dimension of the meteorological grid along with the size of each grid rectangle must also be indicated. It is recommended that both grids be given a common origin. If a puff travels outside the modeling region, it is deleted from further consideration. If it travels outside the

meteorological grid, but is still within the modeling region, the wind at the nearest grid point to the puff is used to advect it further.

Information on the source includes the following:

- Location (km),
- Emission rate (g/sec),
- Physical stack height (m),
- Stack gas temperature (K),
- Stack diameter (m),
- Stack gas velocity (m/sec),
- Stack gas volume flow (m^3/sec),
- Initial dispersion parameters (m), and
- Deposition and gravitational settling velocities (cm/sec).

Also, the direction and speed of the source, if it is moving, must be provided as input.

The meteorological data needed for the computations are as follows:

- Wind direction (deg),
- Wind speed (m/sec),
- Mixing height (m),
- Stability class (dimensionless),
- Standard deviation of elevation angle (radians),
- Standard deviation of azimuth angle (radians),
- Ambient air temperature (K), and
- Anemometer height (m).

The user has the option of updating the meteorological information after each meteorological time period. The location and height of each receptor must be indicated. If dispersion is characterized by the on-site scheme, then the standard deviations of the azimuth and elevation angles are required.

The following information is required by the plot routines:

- Type of plot desired,
- Location of concentration versus time plots, and
- Plotting grid.

The plot routines were developed on a UNIVAC 1110 and use CALCOMP plotting software.

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APPENDIX L

IRA-F TOTAL SUSPENDED PARTICULATES (TSP) DATA
(on diskette file APPL.TXT)

APPENDIX M

IRA-F RESPIRABLE PARTICULATES
OF LESS THAN 10 MICRONS
(on diskette file APPK.TXT)

APPENDIX N

IRA-F ARSENIC, METALS, AND MERCURY DATA
(These data have not been finalized by PMRMA)
(on diskette file APPN1.TXT and APPN2.TXT)

APPENDIX O

IRA-F VOLATILE ORGANIC COMPOUNDS (VOC) DATA
(These data have not been finalized by PMRMA)
(on diskette file APPO1.TXT and APPO2.TXT)

APPENDIX P

IRA-F SEMI-VOLATILE ORGANIC COMPOUNDS (SVOC) DATA

(These data have not been finalized by PMRMA)
(on diskette file APPP.TXT)

APPENDIX Q

IRA-F ORGANOCHLORINE PESTICIDES (OCP) DATA
(These data have not been finalized by PMRMA)
(on diskette file APPQ.TXT)